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Online Reputation Management

Cleaning up your corporate image is hot, but is it ethical?

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MARCH 17, 2008
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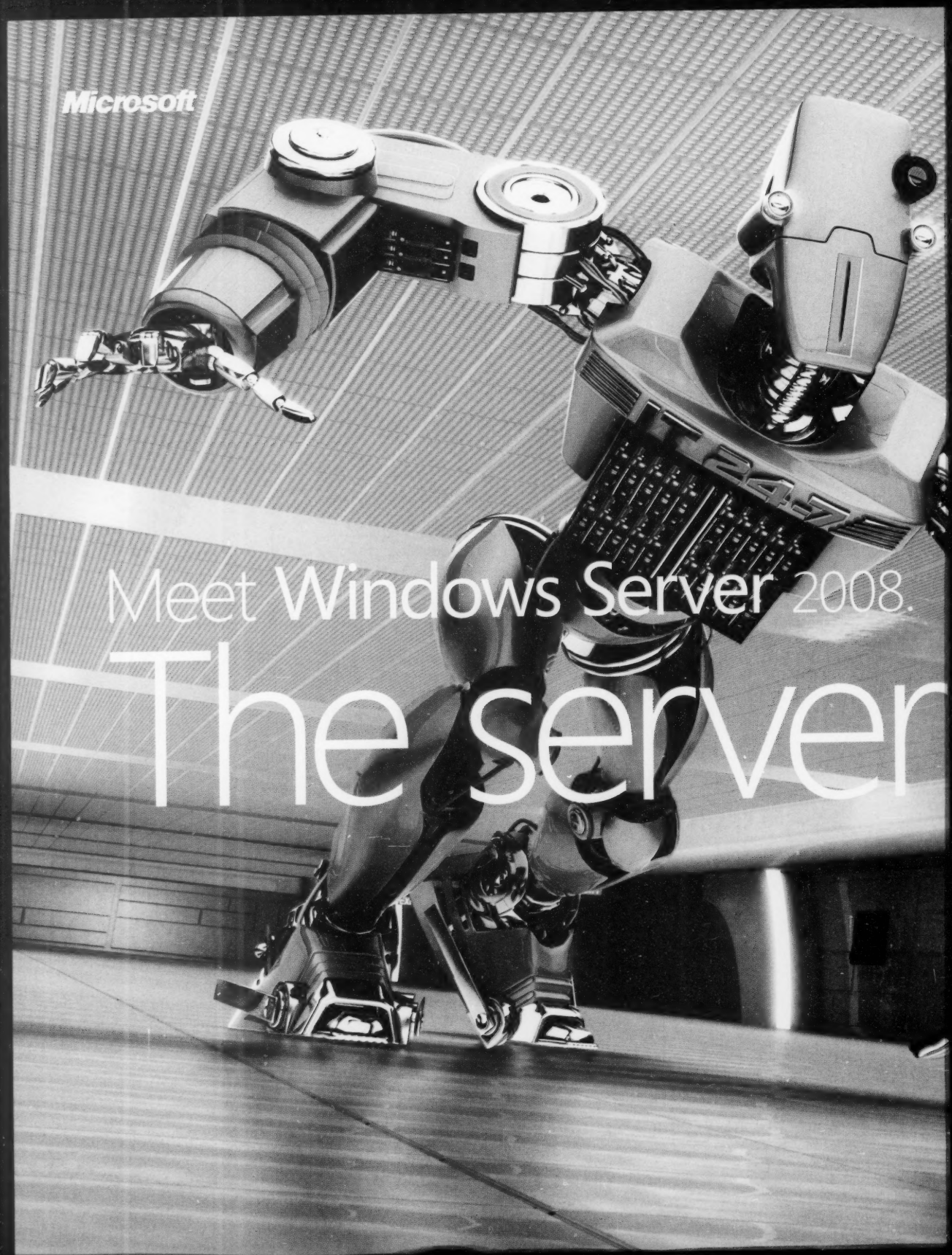
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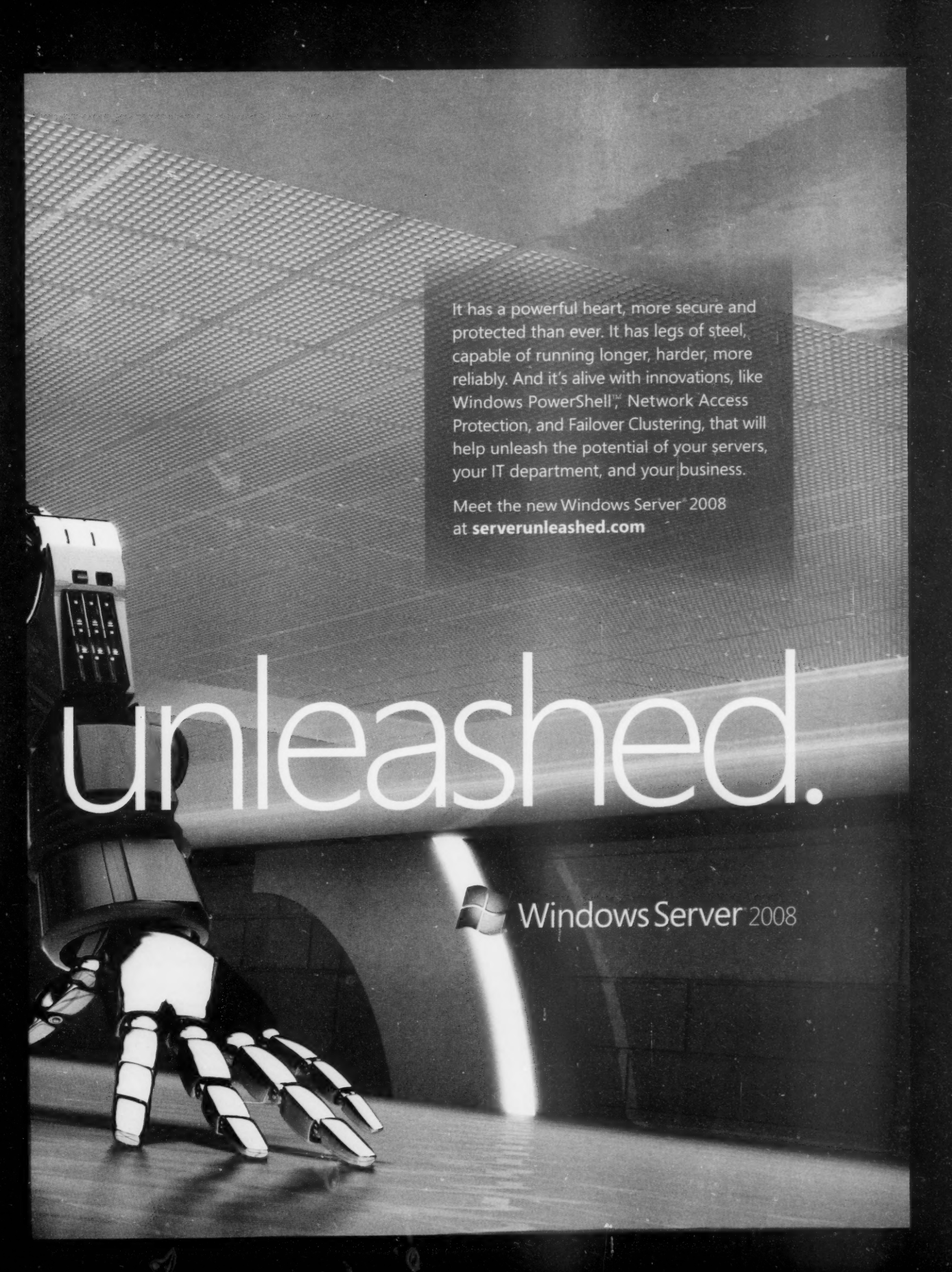
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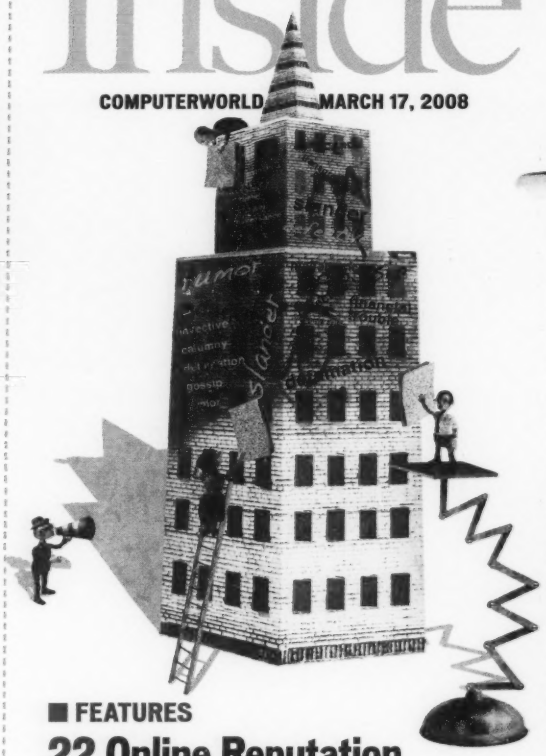

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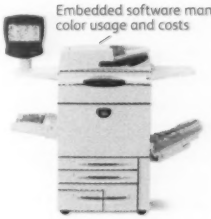

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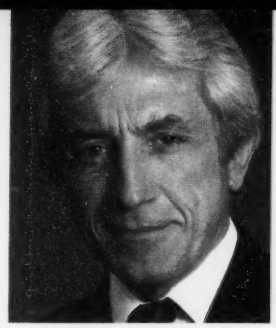
EDITOR'S NOTE

Don Tennant

Hear Dell Out



I'M GOING to tell you something, and you're probably going to laugh, but try to contain yourself. Ready? Dell is getting into the IT-as-a-service business. So much for containing yourself. I'll wait till you're composed.

You might think that in light of Dell's dismal track record on service in recent years, the idea of relying on the company as a provider of IT as a service is comical. Perhaps. But the least we can do is hear the company out.

I'm not breaking any news here. Dell executives at conferences and during earnings calls over the past several months have been talking about the company's intention to provide what is essentially a hosted remote management service to small and midsize businesses. And last week, Steve Schuckenbrock, CIO and president of global services at Dell, outlined the plan.

Speaking at *Computerworld*'s Premier 100 IT Leaders Conference in Orlando, Schuckenbrock said the company wants to build on its strengths in configurability and supply-chain optimization and do for the supply chain of services the same thing that Michael Dell did for the supply chain of hardware when he founded the company 23 years ago. Using technology it gained last year through its acquisitions of the Everdream software-as-a-service platform and Silverback Technologies' remote management and proactive monitoring tools, Dell aims to provide a hosted service that will identify problems with users' systems before they even manifest themselves to the users, and transparently solve them. Dell is currently piloting the service with about a dozen companies and plans to roll it out commercially in the Americas this summer and in Europe and Asia before the end of the year.

I spoke with Schuckenbrock after his presentation, and I asked him the obvious questions, starting with the one about the elephant in the room. I prefaced it by pointing out that there's a reason why Web sites have sprung up with names like Ihatedell.net and Dellhellrevisited.blogspot.com. (The only reason there's no Dellhell.com is that Dell registered the domain name in February 1999 to keep it out of the hands of pesky customers.) And then I phrased the question as delicately as I could:

■ There's a reason why Web sites have sprung up with names like Ihatedell.net.

"What's your response to someone who says that under the circumstances, there's a certain irony in Dell positioning itself as a service provider, because Dell service is kind of a joke?"

"I don't agree with that," Schuckenbrock replied. "If you look at those sites, they call out specific issues, most of which are consumer-driven issues, not commercial, business-driven issues. If you look at our commercial business, it's performing very, very well."

But wait a minute. Schuckenbrock noted in his presentation that Dell's consumer business accounts for only 15% of revenue, so it's seen as a key growth area for the company. It's difficult to see why the fact that those Web sites focus on consumer issues makes Dell service any less of a joke. When I called him on that, Schuckenbrock insisted that the situation is getting better. "Hopefully, you and others have seen a significant improvement in the last 12 to 18 months," he said. "Our own internal measures taken from direct customer feedback confirm that we are headed in the right direction."

At the same time, Schuckenbrock acknowledged that Dell has an image problem as a result of the unfortunate decision a few years ago to move a lot of its support services offshore.

"Anytime you make mistakes, you have to perform in order to overcome those mistakes," he said. "But I think we are performing, and I think there's plenty of evidence beginning to mount that that's a thing of the past."

Schuckenbrock may be right. The only posting on the Dellhellrevisited blog in the entire month of February was a piece that was taken from my blog about a problem with the screens on Inspiron 9300 notebooks.

At this rate, who knows? Maybe Dell won't have to renew its ownership of the Dellhell.com domain name when it expires next February. What a boon for its IT-as-a-service business that would be. ■

Don Tennant *is editorial director of* Computerworld *and* InfoWorld. *Contact him at don_tennant@computerworld.com, and visit his blog at* http://blogs.computerworld.com/tennant.

Pursuing Greener Technology, Ignoring the Hype

After reading Don Tennant's "Green Pall" column [Editor's Note, Feb. 11], I felt compelled to reply for the sake of my profession. I share Tennant's surprise that green is so low on the priority list of my peers. Unfortunately, this seems to continue a pattern of behavior that has placed IT near the bottom in customer satisfaction among shared services departments. Why wouldn't you embrace green? When I started stressing this with my team over a year ago, I told them this is the first time we have a project that is easy to implement, costs nothing, provides positive PR and saves us money. It was one of the easiest decisions I have ever made.

So far, our efforts with power-saving settings, customer education and smarter procurement have saved tens of thousands of dollars, with very little effort expended. In fact, given our ROI to date, I'm preparing to push my team harder for more ideas and ways to be green. Our slogan is "Green = Green!"

■ **Stephen C. Plut**, *vice president and CIO, MSA, Pittsburgh, steve.plut@msanet.com*

It's worth considering the Jevons Paradox, first described by William Stanley Jevons in 1865. In short, technological improvements increase efficiency, which leads to increased availability and/or decreased price or cost of energy. The lower price per unit of work means that more work can be purchased at a given price.

So if IT shops can decrease the energy/cooling needs of the data center, that will likely result in short-term benefit from temporarily lowered energy use and lower energy expenses. That temporary savings will also likely eventually result in additional servers (or storage devices or whatever) that get added to data centers and will likely result in additional energy being used.

It does make sense to look at ways to have a positive impact on the bottom line. Using all resources wisely is in the best interest of everyone. But appealing to marketing and hype is not a sound strategy.

■ **Bruce D. Anderson**, *PharmD, director of operations, University of Maryland School of Pharmacy, Baltimore, banderso@rx.umaryland.edu*

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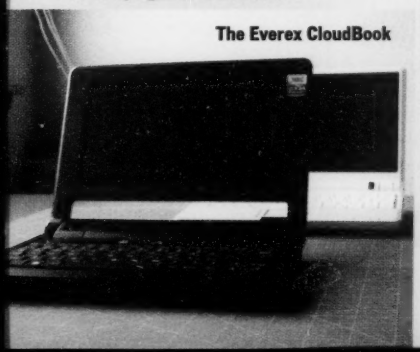
Battle of the Linux-based Featherweight Notebooks

Since its introduction in October, Asustek's 2-lb., $400 Eee PC has proved that less can be more. Now it has its first real competition – the seriously handsome Everex CloudBook, which matches the Eee's weight, screen and price tag. How do the CloudBook and the Eee stack up against each other?



The Everex CloudBook

IT's Top 5 Training Mistakes

When rollouts go wrong, it's tempting to blame the end user. However, sometimes the fault lies elsewhere.

PowerShell Tips and Tricks

Microsoft's shell and scripting language is a classy, robust and powerful way to take control of your Windows operating system.

10 Broken Technology Ideas – And How to Fix Them

These concepts sound good but don't work so well in practice. We have some suggestions.

Web 2.0: The Skills Behind the Buzzword

Columnist Katherine Spencer Lee examines the question: What does Web 2.0 mean for your IT career?

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News Digest

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THE WEEK AHEAD

MONDAY: General sessions begin at Novell's BrainShare 2008 user conference in Salt Lake City and SAS Institute's SAS Global Forum 2008 in San Antonio.

TUESDAY: Adobe Systems is scheduled to report financial results for its first quarter, which ended Feb. 29. Palm is also due to report results this week, on Thursday.

TUESDAY: Telepresence World 2008 London starts, focusing on the use of telepresence technology in business.

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WORKFORCE

Gates Claims Cap on H-1B Visas Puts U.S. High-Tech Jobs at Risk

WHEN BILL GATES testified last Wednesday at a congressional hearing on U.S. competitiveness, it was mostly standard fare. The Microsoft Corp. chairman reiterated his criticism of the government's annual H-1B visa cap and also addressed other issues, such as efforts to improve the U.S. educational system.

Then Rep. Dana Rohrabacher (R-Calif.) tried to make it personal with Gates, asking him whether allowing more H-1B holders into the U.S. would let companies such as Microsoft pay lower salaries. Rohrabacher also asked Gates whether a larger H-1B influx would displace workers who "fought for our country and kept it free so people like yourself would have the opportunity that you've had."

But Gates held firm to his assertion that the U.S. runs the risk of losing jobs if companies can't bring in "world-class engineers" via the H-1B program.

"These top people are going to be hired," he said. "It's just a question of what country they're hired in. And if these top engineers are forced to work in India, we will hire students from India to work around them."

The current cap of 65,000 regular H-1B visas "bears no relation to the U.S. economy's demand for skilled professionals," Gates contended. He added that Microsoft has been unable to obtain visas for one-third of the highly qualified foreigner workers it has wanted to hire.

But Ron Hira, an assistant professor of public policy at Rochester Institute of Technology in New York, said that "the H-1B program that Bill Gates described simply doesn't exist." Citing data from the U.S. Citizenship and Immigration Service, Hira said that a typical H-1B worker is paid about $50,000 annually — less than half of the $100,000-plus that Gates said Microsoft pays to entry-level visa holders.

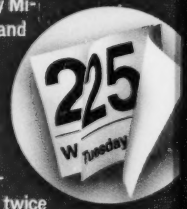
Last year, the USCIS randomly picked H-1B recipients after receiving nearly 124,000 applications in just two days. With a similar crush expected when the application period begins on April 1, a USCIS spokesman said, the agency is "looking at possible remedies to make sure that no one is able to game the system."

— Patrick Thibodeau

NETWORKING

Cisco to Patch IOS Software Twice a Year

Cisco Systems Inc. last week said it's adopting a regular schedule for releasing security bulletins and fixes for the software that powers its flagship routers and switches, with the first set due on March 26.



Cisco's move is similar to earlier ones by Microsoft Corp. and Oracle Corp. But Cisco plans to issue fixes for its Internetworking Operating System (IOS) only twice a year, on the fourth Wednesdays of March and September. Microsoft releases updates monthly, and Oracle quarterly.

Those two vendors have higher patch volumes than Cisco, which issued just eight advisories on IOS last year. But because Cisco routers are so widely used, IOS is an attractive target for attackers.

Cisco said IT managers had asked it to bundle patches in order to "reduce the amount of 'flux' in their networks." However, the vendor noted that it will "promptly" release updates for serious vulnerabilities that are publicly disclosed or are being actively exploited.

– ROBERT McMILLAN, IDG NEWS SERVICE

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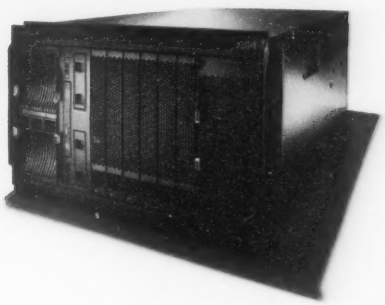

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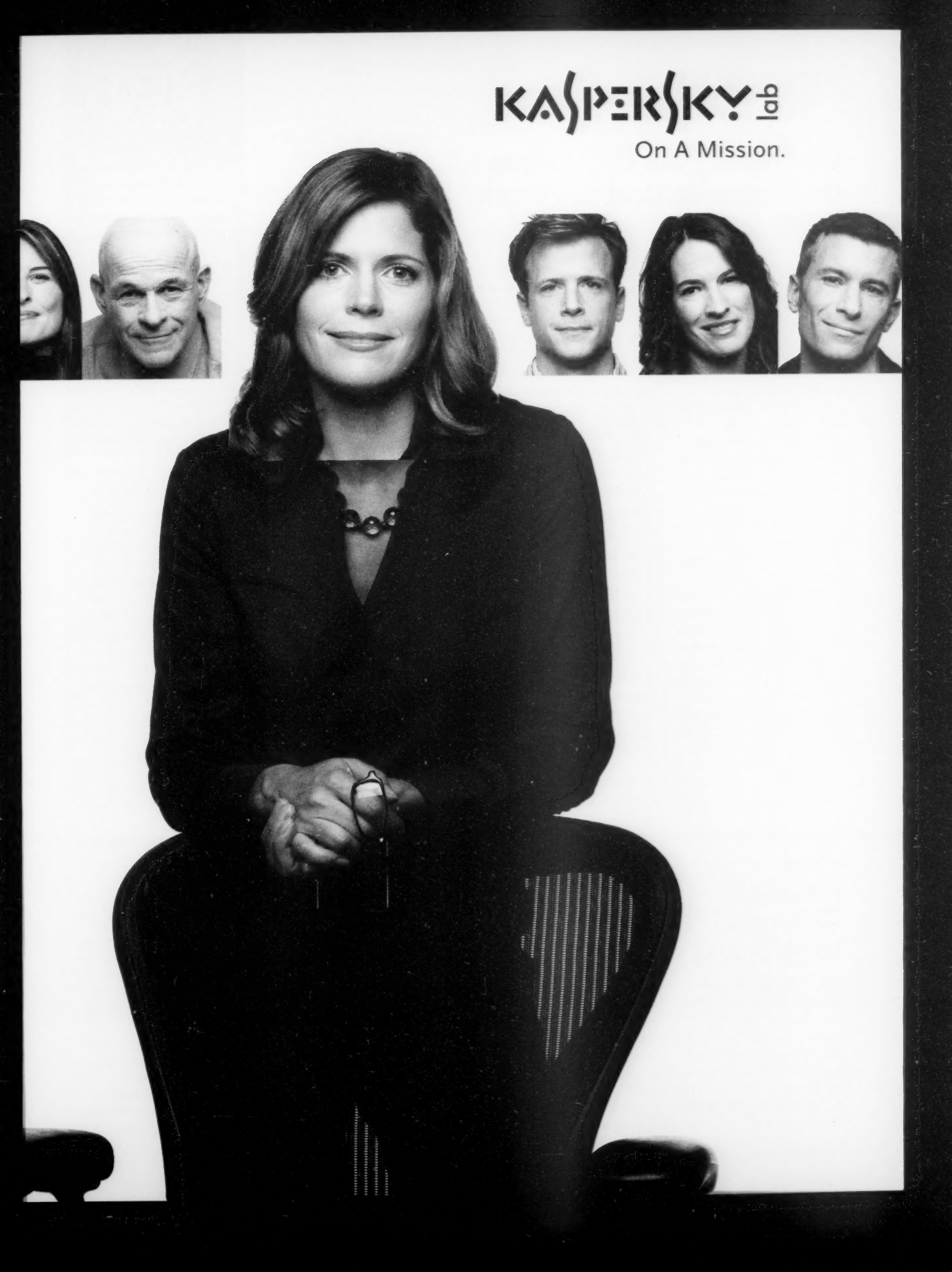
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SOFTWARE

Microsoft Pins ERP Hopes On Dynamics Usability Work

ORLANDO

MICROSOFT CORP. hopes its efforts to improve the usability of its Dynamics ERP software can give it a boost in taking on more-established rivals like SAP AG and Oracle Corp.

Jakob Nielsen, principal user experience manager for Dynamics at Microsoft, told an audience at the company's Convergence conference here last week that ease-of-use upgrades in the next Dynamics version could prove attractive to the many dissatisfied corporate ERP software users.

"When it comes to emotional connections with business software, it's not so positive most of the time," he said. "*Hate* is probably the word used more often."

Nielsen said his job is to make sure the next version of Dynamics, called AX 2009 and due out later this year, meets the elusive "desirability" needs of users.

He noted that the Dynamics user-experience team worked with students at the IT University of Copenhagen and with AX 2009 beta testers to improve usability. The company also allows beta users to provide feedback and vote on proposed features at its Microsoft Connect portal, Nielsen added.

"We really needed some method where we could get people . . . to express their emotions when they used the product," Nielsen said.

> **"We're early enough on that we're able to work with the out-of-the-box templates, but I fully expect within six weeks, we'll be slammed with requests for [changes].**
>
> **JOHN ELMER,** VICE PRESIDENT OF INFORMATION SYSTEMS, RODGERS AND HAMMERSTEIN ORGANIZATION

The team has already used the feedback to create "role centers," or Dynamics templates tailored for specific jobs, he added.

John Elmer, vice president of information systems at the Rodgers and Hammerstein Organization in New York, said that workers testing the software at his firm are so far impressed with its ease of use.

"We think they really got it right on this one," he said. "Things really came together, and we've got a lot of happy people."

The multiple-division company represents an array of entertainment artists and productions, and has complex business processes, according to Elmer.

The role centers make it easier for users to find relevant information — which shifts some work from IT. "People can do their own data mining," he said.

But the software will likely still require some customization, he noted.

"We're early enough on that we're able to work with the out-of-the-box templates," Elmer said, "but I fully expect within six weeks, we'll be slammed with requests for [changes]."

— Chris Kanaracus, IDG News Service

Short Takes

Microsoft Corp. released patches for 12 security flaws, including one in Excel that attackers have exploited for the past two months. Patches were also issued for holes in Outlook, Office 2000 and Office's Web components.

Iomega Corp. has rejected EMC Corp.'s $178 million buyout bid, preferring instead to go ahead with its plan to buy ExcelStor Great Wall Technology Ltd. and Shenzhen ExcelStor Technology Ltd.

Editor's Note

At the 54th Annual Jesse H. Neal National Business Journalism Awards ceremony in New York on Friday, *Computerworld* was named Best Web Site and also won the two other online-specific awards given to sites with more than 500,000 unique visitors per month. Those were for Best Blog and Best Online Article or Series, the latter for a series of stories last October on the Leopard release of Apple Inc.'s Mac OS X operating system.

LEGAL ISSUES

Retailer Charges IBM With Fraud

RETAILER Harry and David Holdings Co. has filed a $6 million fraud and breach-of-contract lawsuit charging that IBM sold it e-commerce software that violated patents held by NCR Corp. and Charles Hill & Associates Inc., according to court documents.

The Medford, Ore.-based provider of gourmet foods contends that IBM was aware that the product violated the patents when it sold the offering.

The e-commerce software includes various versions of IBM's WebSphere Commerce Business Edition and is used to create Web sites and conduct business online.

Harry and David alleges that IBM did nothing to protect it from a lawsuit by Charles Hill or complaints by NCR, according to papers filed in an Oregon federal court last month.

An IBM spokesman said the company had no comment on the lawsuit.

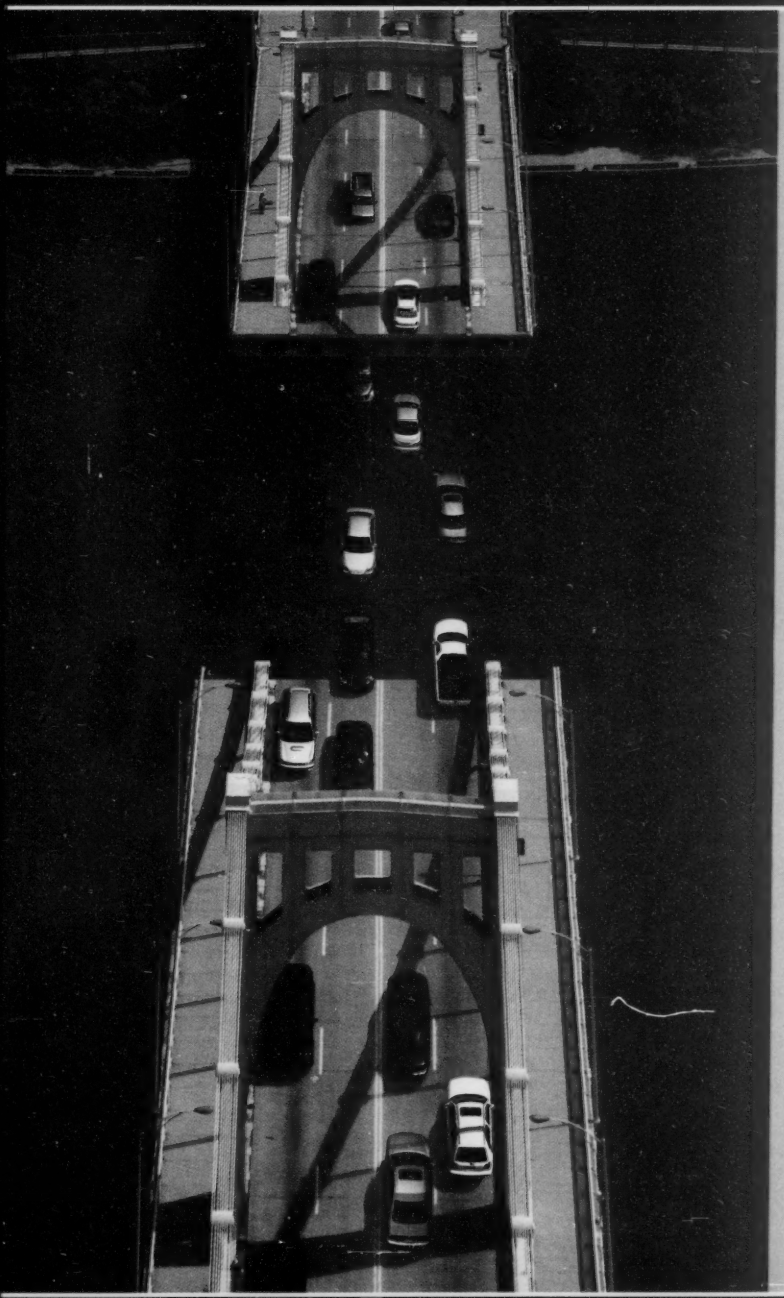
According to the lawsuit, Harry and David purchased WebSphere Commerce from IBM in March 2004.

On June 13, 2005, NCR notified the retailer that its use of the e-commerce programs infringed on NCR's patents for e-catalogs. Then, on June 7, 2007, Charles Hill sued the company for infringing on its Web-caching patents.

Harry and David contends that its contract with IBM called for the delivery of e-commerce programs free of patent-infringement claims.

– LINDA ROSENCRANCE

WHEN INFORMATION AVAILABILITY MATTERS



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GOVERNMENT

Census Bureau Might Not Be Able to Count On Handhelds in 2010

THE U.S. Census Bureau's plan to use wireless handheld devices during the 2010 census was classified as a high-risk project by the Government Accountability Office this month.

A census worker tests a handheld during a trial last year.

And at a hearing held by a Senate committee, federal officials agreed with the GAO's assessment that there are serious problems with the two-year-old project.

Carlos Gutierrez, secretary of the U.S. Department of Commerce, said in written testimony that there has been "significant miscommunication" between census officials and contractor Harris Corp. In particular, there was "a lack of clarity" in defining technical requirements, leading to "discrepancies" over things such as data upload times and storage capabilities, he wrote.

The Census Bureau, which is part of the Commerce Department, awarded Harris a $595 million, five-year contract in 2006. But the agency has since requested more than 400 changes in the requirements, said David Powner, the GAO's director of IT management issues.

The GAO said in a report released March 5 that there have been $6 million in cost overruns on the project, and more are expected.

Steve Murdock, who became director of the Census Bureau in January, said in written testimony to the Senate Committee on Homeland Security and Governmental Affairs that the agency is looking at all of its options, from moving ahead with the project to reverting to a paper-based system.

In a statement, Harris acknowledged that dealing with requirements changes from customers is "challenging." But the company said it remains "totally committed" to supporting the Census Bureau's handheld efforts.

— Patrick Thibodeau

BETWEEN THE LINES *By John Klossner*

BENCHMARKS LAST WEEK

Google Inc. completed its $3.1 billion acquisition of online ad-serving vendor DoubleClick Inc., just hours after the European Commission approved the deal.

IBM's long-abandoned Building 25 complex in San Jose was heavily damaged in a fire. Built in 1957, the R&D lab was one of the first high-tech office campuses.

THREE YEARS AGO: A jury found former WorldCom Inc. CEO Bernard Ebbers guilty of conspiracy and securities fraud in connection with $11 billion worth of accounting misstatements at the telecommunications vendor.

Global Dispatches

U.K. Cuts Back National ID Plan

LONDON – The British government this month scaled back plans to require that all U.K. residents carry national identification cards.

The latest plan allows passports and driver's licenses to serve as ID cards, said Home Secretary Jacqui Smith. In addition, implementation timetables have been pushed back, and the cards will carry only fingerprints instead of a range of biometric data, she said.

The plan marks a considerable scaling back of former Prime Minister Tony Blair's national ID plans.

David Davis, a Conservative Party leader and an opponent of the national ID plan, said that even the latest plan will place "dozens of personal details of every adult in this country in one place, [providing] a real target for criminals, hackers and terrorists."

Computerworld U.K. staff

Jump in U.K. IT Spending Expected

MANCHESTER, ENGLAND – Spending on IT in the U.K. will grow faster than the rest of the economy, in spite of fears of a recession, according to the results of a survey by the National Computing Centre.

The corporate IT trade group said that 58% of the 120 U.K. companies it surveyed predicted that IT expenditures will increase by an average of 4.2%, compared with a projected increase of 2.2% in the U.K. Consumer Price Index.

The surveyed companies had average annual sales of £267 million ($540 million U.S.) and average IT budgets of £6.25 million ($12.6 million U.S.).

Leo King,
Computerworld U.K.

BRIEFLY NOTED

Taiwan Semiconductor Manufacturing Co. last week announced plans to spend $5 billion (U.S.) to add a research and development center to its manufacturing facility in Hsinchu, Taiwan. Engineers at the new center will work on 32-, 22- and 15-nanometer process technologies, a spokesman said.

Sumner Lemon,
IDG News Service

Execs Skeptical That iPhone 2.0 Meets IT Needs

The upgrade adds an SDK and Exchange support, but security concerns linger.

By Matt Hamblen

> **"The SDK release seems to want to say that Apple has the enterprise blessing and that everything is wine and roses. I'll believe it when I see it."**
>
> GEORGE McQUILLISTER, CLIENT COMPUTING ARCHITECT, PACIFIC GAS AND ELECTRIC CO.

INFORMATION technology executives said they are skeptical, but also hopeful, about Apple Inc.'s promise that the next version of its iPhone mobile device will better meet the security and management needs of large organizations.

Early this month, Apple said that Version 2.0 of the iPhone will include Microsoft protocols that add Exchange support to the device, plus a software development kit (SDK) to help third parties build applications for the smart phone.

The iPhone 2.0 is slated to ship in June, Apple said.

"All in all, the [iPhone 2.0] announcement is a good thing, as it continues to push the technology innovation envelope," said George McQuillister, client computing architect at Pacific Gas and Electric Co. in San Francisco. He added that the new SDK should "drive OEMs to push their own product developments with greater energy and focus."

Nonetheless, McQuillister said he will continue the company's ban on internal use of the iPhone that was imposed after the original version was released last summer. "I was concerned it didn't have the management controls and security we needed," he explained.

With the unveiling of the new version, "I'm going to tell everybody the same thing — that it's too early for the adoption stage," McQuillister said. "The SDK release seems to want to say that Apple has the enterprise blessing and that everything is wine and roses. I'll believe it when I see it."

For example, he noted that "the single-carrier limitation for the iPhone is a significant barrier to adoption for larger enterprises who have workers dispersed over large geographic territories," referring to AT&T Inc.

Apple said its use of Microsoft Corp.'s Exchange ActiveSync for push e-mail and data-wipe functions, and Cisco Systems Inc.'s IPsec VPN technology for data encryption, should ease corporate fears about iPhone security.

An IT executive at a large bank, who asked not to be named, said the remote data-wipe and VPN features will help with security, but she wants more details about what additional infrastructure would be needed to support the upgrades.

John Girard, an analyst at Gartner Inc., noted that while the Cisco IPsec VPN — and its data encryption capabilities — will beef up wireless security for the iPhone, it does nothing to protect against attacks when the device is lost or stolen.

"A VPN alone is not a complete security defense for a mobile device," Girard said. "I still see the biggest security risk to be the reading of information from a lost or stolen device. At this time, even with the updated features and tools, the iPhone does not include a mechanism for encryption of all stored data."

He added that third-party developers can now create security tools that encrypt iPhone data, "but it will be months before such tools are delivered."

The bank executive noted that Apple must also learn how to deal with corporate customers, even if the new iPhone meets their needs. Apple declines to share any information about the iPhone, even with IT managers who confidentially share their security needs with the company, she noted.

"That's only one-way sharing, and they have to change that mind-set if they want to make progress [in] the enterprise," she said. "Maybe they will eventually become more corporate-focused, but they are definitely not now."

An IT executive at a consumer goods company, who also asked not to be named, said that iPhone support for Exchange would allow users "to hook into the corporate e-mail system, but [it] doesn't address many of the [platform's] security, privacy and ROI concerns."

The executive said that third parties could meet his needs, "but I'm not convinced of this yet." The iPhone, he added, "remains too open from a security perspective. It wasn't built from the ground up to be secure like the BlackBerry."

Just days after the iPhone 2.0 announcement, Sun Microsystems Inc. disclosed plans to use the SDK to build a Java virtual machine for the iPhone 2.0 that Sun officials said should hasten the development of corporate iPhone applications. ■

Gregg Keizer contributed to this story.

CIOs Getting A Say on the Business Side

Many IT execs have moved beyond aligning IT with business operations. Now they're involved in setting business strategies and leading internal transformation efforts.

By Thomas Hoffman and Craig Stedman

PREMIER 100 IT LEADERS CONFERENCE

FORGET ABOUT mere IT-business alignment. At many companies, the new name of the game is melding technology and business operations, with CIOs getting a say in setting not only IT plans but business strategies as well.

For example, when Anthony Hill was asked to lead an e-business initiative at Golden Gate University in San Francisco several years ago, what the administration actually wanted him to do was transform the way the school operated, he said at *Computerworld*'s Premier 100 IT Leaders Conference in Orlando last week.

I think we really need to challenge the way things have always been done and ask why they're being done that way, and is there a more efficient way.

ENZO MICALI, CIO, TNS NORTH AMERICA

PHOTOGRAPHS BY CRAIG HUEY

Instead of the IT department simply supporting business operations, "we now talk about how IT gets in front of the business," said Hill, Golden Gate's CIO. "IT should no longer be viewed as just an enabler of somebody else's business strategy. We need to change the dialogue to really eliminate the lines between IT and the business."

Peter Walton, CIO at Hess Corp., has literally altered the dialogue at the New York-based petroleum products company by banning IT staffers from referring to its business units as "customers" or even "users." Instead, Walton said he wants his team to treat fellow employees simply as "company mates and peers." He even tries to avoid using the word *alignment* internally. It goes deeper than that now, he said: "We're trying to fuse with the business."

That's all part of an effort to stop business executives from "just seeing us as technology service providers," Walton said. "I just absolutely hate being treated like that when we can provide so much to the company." His goal is to have employees view IT no differently than they do the finance and human resources departments.

And the strategy is getting results, according to Walton, who plans to retire from Hess next month. He said that as part of a new organizational structure, the CIO's office is scheduled to begin managing some core business functions.

In addition, Hess is creating a joint IT and business group that will work outside of its day-to-day operations to develop new operating processes and advanced technologies. That unit will combine IT workers with geologists, scientists and other employees and report to the senior vice president of oil exploration and production, Walton said.

IT should no longer be viewed as just an enabler of somebody else's business strategy.

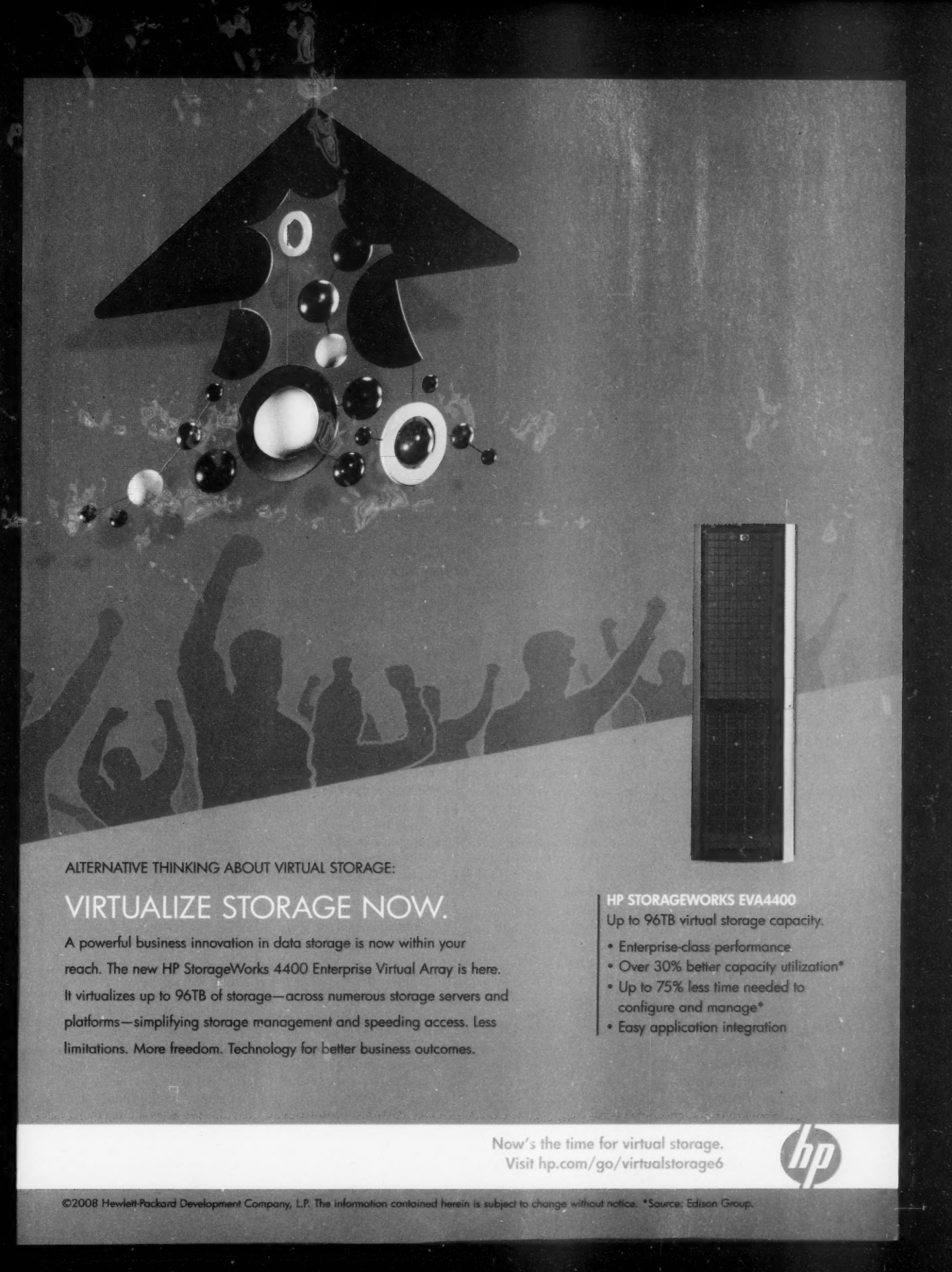
ANTHONY HILL, CIO, GOLDEN GATE UNIVERSITY

Hill and Walton are part of a growing class of IT leaders who are positioning themselves as activist CIOs within their organizations and working directly with other top executives to influence strategic directions and suggest changes in internal business processes.

Richard Fox, vice president of IT at PHH Mortgage in Mount Laurel, N.J., has spent the past seven years working side by side with the sales managers at the PHH Corp. subsidiary. Fox said that has helped him to build a rapport with sales executives and gain the credibility he needed to take the lead on business improvement opportunities.

For example, he pointed to discussions that he and

Continued on page 16



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The distinction between technology and business is antediluvian – it's gone.
DOUGLAS MERRILL, CIO AND VICE PRESIDENT OF ENGINEERING, GOOGLE INC.

Continued from page 14

the sales team are having about potential changes to some of PHH's mortgage application processes. "It's absolutely about being proactive," Fox said, "and saying to your business peers, 'I know what your pain points are. Have you ever considered trying this approach?' "

Enzo Micali, CIO at TNS North America in New York, has a similar outlook on working with business units. "I think we really need to challenge the way things have always been done and ask why they're being done that way, and is there a more efficient way," he said. That approach has worked well for Micali from a professional standpoint: Last month, he was put in charge of all operations at the U.S. subsidiary of market research firm Taylor Nelson Sofres PLC.

Integrating IT and business management activities made sense for TNS, according to Micali. "We need people that are comfortable with a level of change, with taking risks and with being nimble on their feet — and those are traits of IT people," he said. In addition, he noted that IT managers are "very process-driven," making them logical candidates to lead business process transformation efforts.

Conference attendees said that CIOs often also have a unique horizontal view of how their organizations operate and how changes in one unit could affect others.

Managers of business units may know the most about their own fiefdoms, "but they never see what [another department] over there is doing," said Richard Gius, CIO at Atmos Energy Corp. in Dallas.

Cardinal Health Inc. in Dublin, Ohio, recently set up a corporate shared-services organization, giving its CIO responsibility for some aspects of finance and HR, said Dave Hammond, vice president of enterprise IT at the maker of health care software and medical instruments and supplies.

That deeper business involvement extends beyond the CIO level, Hammond added. He said that an IT project manager is running an entire office-building construction project, not just the technology infrastructure piece of it. And Hammond himself plans to shift into a product development job at Cardinal Health.

There are some prerequisites for IT executives, though. Micali said that CIOs need to learn the business at their companies, otherwise "no one will respect any ideas that you bring to the table." They also have to make sure that their own IT houses are in order, he added, noting that he had to fix some IT infrastructure issues at TNS North America before looking to influence changes in other units.

It also pays for CIOs to be politically astute. Jeffrey Steinhorn, who currently is CIO for the marketing and refining operations at Hess, said that shortly after joining the company, he started developing a new IT strategic plan by meeting one on one with several business executives to float ideas for internal changes.

That grass-roots effort was more effective than "coming out kind of with my guns blazing," said Steinhorn, who has been tapped to replace Walton as corporate CIO at Hess. "It became their strategy, not mine."

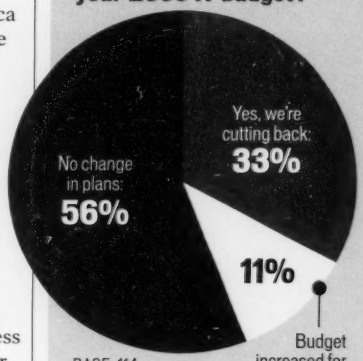
Knowing when to push and when to back off is crucial as well, said Golden Gate's Hill. "The organization has to want to change," he noted. "You can influence; you can cajole" — but if business executives strongly resist your ideas, it might be time to retreat.

With increased influence comes added responsibility — and bigger risks.

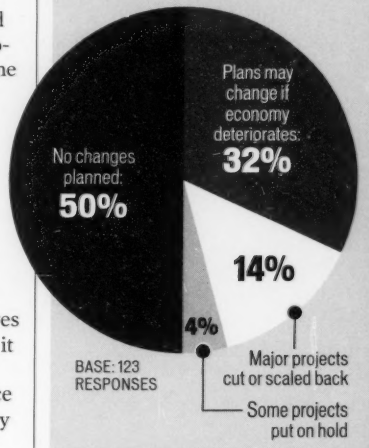
In the past, when reducing internal costs was IT's primary purpose, "the optimal CIO job was invisible," said Douglas Merrill, CIO and vice president of engineering at Google Inc. But now, Merrill added, "the distinction between technology and business is antediluvian — it's gone. The good thing is it gives us more power [within companies]. The bad thing is that if we screw up, we take our companies with us."

Economic Impact

Has the possibility of a recession affected your 2008 IT budget?

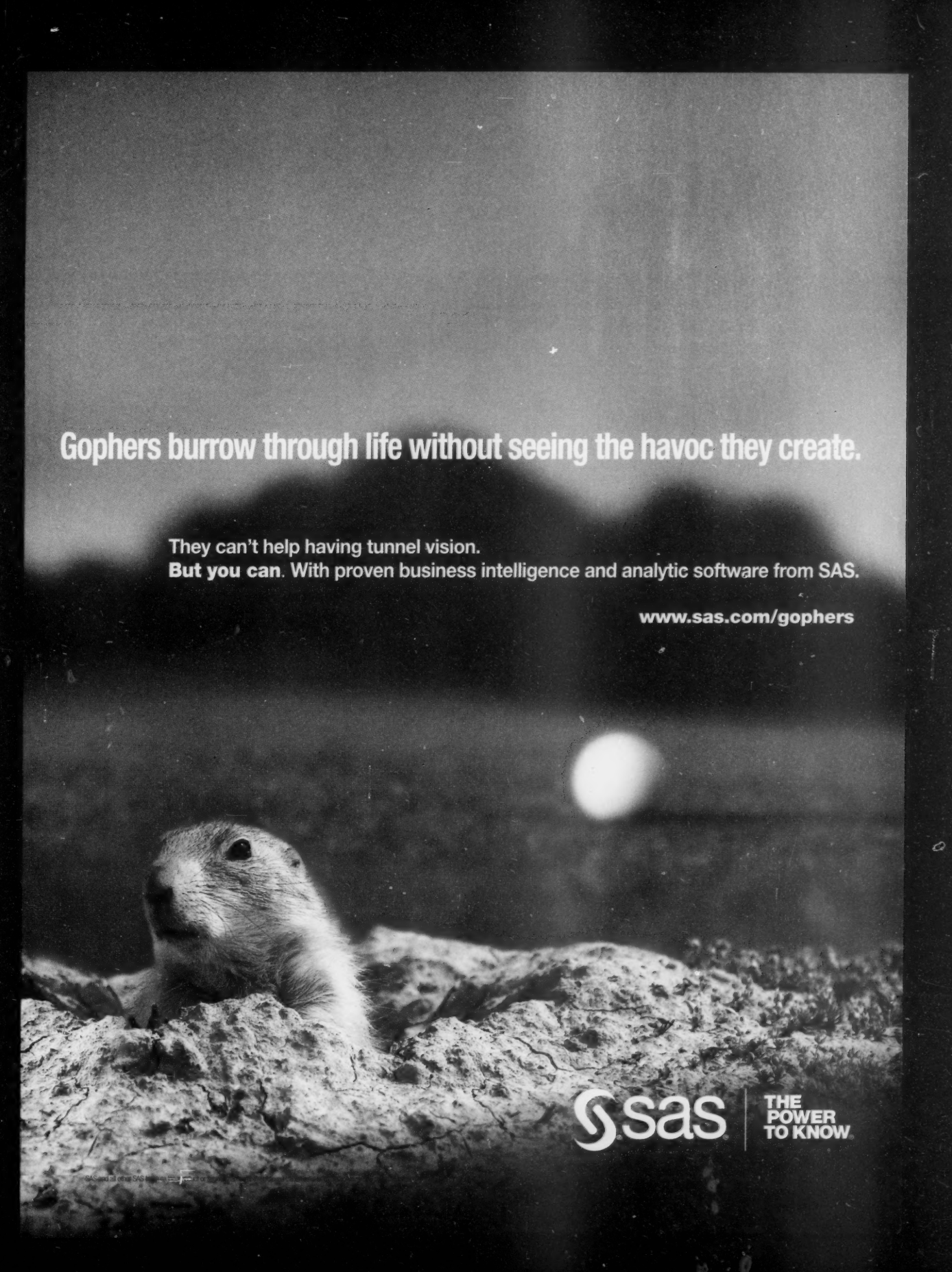


Are IT projects being affected by the recession fears?



SOURCE: AN E-MAIL SURVEY OF PREMIER 100 HONOREES AND OTHER IT MANAGERS CONDUCTED BY *COMPUTERWORLD* BETWEEN FEB. 13 AND MARCH 5. A TOTAL OF 125 RESPONSES WERE RECEIVED.

Gius said, though, that he and other CIOs are learning to live with the risks. For example, when large ERP installations went awry in the past, many IT executives "ran for the hills," saying they were business projects, not IT initiatives, Gius said. "But now you're seeing CIOs become a little more emboldened," he added. "I think we're stepping up." ■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On the Mark

HOT TRENDS ■ NEW PRODUCT NEWS ■ INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

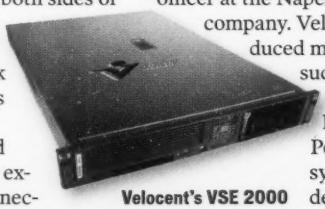
Unclogging Wireless Data

SUBSCRIBERS TO 3G wireless networks, which let people use data services as well as gab on their handsets, will top a half-billion next year and grow by another 150 million by 2010, according to an average of estimates by analysts from Strategy Analytics, Infonetics and other firms. And a pair of vendors say most wireless carriers lack the tools to handle the resulting traffic loads.

Carriers need to fix their network "blind spot," Schabel says.

Mike Schabel, general manager of Alcatel-Lucent Ventures, which is part of Bell Laboratories in Murray Hill, N.J., says wireless operators have a "blind spot" because radio-frequency monitoring tools don't see packet data, and IP tools can't get inside of cellular networks. He says carriers need something that can detect problems in both sides of a network. He claims that the Alcatel-Lucent 9900 Wireless Network Guardian (WNG) grabs both the IP and radio traffic on a network and can determine how, for example, chatty VPN connections are affecting overall network operations. By understanding how the two sides of the network are affecting one another, Schabel says, operators can improve their networks while working with wireless data-application companies to build more-efficient software. Pricing for WNG is implementation-specific.

The founders of Velocent Systems Inc. left Bell Labs to focus on the data side of the wireless management problem, particularly how users are experiencing services, says Mark McIlvane, chief operating officer at the Naperville, Ill.-based company. Velocent has introduced monitoring devices such as the VSE 2000 and the Super KMD. CEO Bruce Peterson says the systems perform deep packet inspection on every IP packet to determine anomalies, such as congestion and latency. They then report the information to managers, who can see how well the carrier is meeting its service-level agreements with companies, groups and even highly valued individual users. Release 2.0 assesses the condition of all the servers on a carrier's network. Pricing for the complete package of monitoring equipment starts at $350,000.



Velocent's VSE 2000

BI ON DEMAND

Retailers wanting insight into regional demographic data heretofore invested tens of thousands of dollars or more in analytical tools and data, handed everything over to IT and then waited. That's fine (maybe) if you're a big operation like Nordstrom or Wal-Mart contemplating where to locate your next store. But if you're a small or midsize chain, it's less than optimal.

Vais: Got a credit card? Get BI.

Enter Asterop Inc., a Paris-based business intelligence company with U.S. headquarters in San Francisco. For less than $100, its new Asterop On-Demand service gives you intelligence about consumer behavior in a region of interest. According to COO Bryan Vais, you can create BI models based on consumer demographics, expenditures and segmentation with specific weights to the various data. "You can build a formula on the fly," he says. For example, Asterop On-Demand can help you locate clusters of like-minded consumers who buy auto parts, high-end bicycles or even the latest Paris fashions in an urban area. Vais emphasizes the importance of Asterop's analytical tools to make the data fecund. "Data is one thing; turning it into information and information into knowledge is the trick," he says.

Later this year, Asterop will be adding the capability for users to upload their own data into the mix for more personalized business intelligence. Vais brags that Asterop is "transcending the ho-hum approach." ■

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FORREST MCMULLIN

■ THE GRILL

Sophie Vandebroek

Xerox innovation chief Sophie Vandebroek talks about the **future of 3-D virtual work**, the switch from **'paperless office'** to **reusable paper**, and the hows and whys of a **diverse workforce.**

Dossier

Name: Sophie Vandebroek

Title: Chief technology officer and president of the Xerox Innovation Group

Organization: Xerox Corp.

Location: Rochester, N.Y.

Philosophy in a nutshell: "In crisis there is opportunity. Always embrace challenges as opportunities."

Favorite non-Xerox technology: "My BlackBerry. It allows me to stay in touch with family, customers, co-workers and the news, no matter where I am."

Technology pet peeve: "Products with nonintuitive user interfaces. I have no time for manuals."

Favorite pastime: "Reading, rollerblading, exploring new countries and cultures."

Ask her to do anything but: "Get up early on a Saturday morning."

Sophie Vandebroek oversees the worldwide research centers at Xerox Corp. Previously, she was chief engineer at Xerox and vice president of the Xerox Engineering Center. She is a fellow of the Institute of Electrical and Electronics Engineers and a Fulbright Fellow and holds 12 U.S. patents. In an address in December to the National Science Foundation she said, "Research and development is no longer a question of what we can do by ourselves, working somewhere in a back room. We are a company now defined by our collaborations. There is a reason why so much innovation is [from the] ground up. Open innovation works."

What do you say to people who think of Xerox as just a photocopier company? Within the research and technology community at Xerox, we no longer do any work on photocopiers. What Xerox really focuses on now is how do customers deal with document-intensive processes, whether it's a lawyer dealing with all the paperwork required to win a legal case or a mortgage company dealing with all the paperwork.

PHOTO COURTESY OF XEROX CORP.

"In my mind, the 3-D virtual world is the future of the Internet.

There are many document-intensive processes, and in most cases, they are pure digital documents.

Speaking of paper, what ever happened to the "paperless office"? What we see today is that paper has a much more temporary existence. One of our studies found that in a typical enterprise, more than 40% of what is printed is basically recycled within 24 hours. People still like the look and feel of paper, but most of the information is available digitally, so they may not store the paper. But we do have several projects going on to help customers get to a more paperless state, like our legal or mortgage workflow applications.

We are also developing concepts like reusable paper, so you can print today and in a couple of days reuse your paper without having to recycle it. It doesn't use physical inks; it's like your sunglasses darkening when you are outside, and when you come in, they get clear again. You can reuse the same paper over and over.

How will the office be different five to 10 years from now? Just the notion of having an office might not exist in the future. Everything will be connected, so it doesn't matter if you are physically in an office or around the world. It will be easy to communicate and collaborate and connect to the right experts and the right partners.

Will social networking be part of this future office? A year ago, we started a research center in Second Life. We have several projects to understand how we can really leverage those 3-D virtual worlds to help our customers within 3-D virtual worlds quickly get the information they need, when they need it. In my mind, the 3-D virtual world is the future of the Internet. In the future, you don't need to be in the same room to look each other in the eye and understand the issues and collaborate on projects. Our researchers around the world have meetings in Second Life, and we have product announcements in Second Life.

Is the U.S. losing its technological edge? We are definitely in danger of losing our innovation leadership. It's partly because the number of students interested in science and technology is dropping off. Second, post-9/11, it's much harder to get a green card and come study in the U.S. Third, these students now have great opportunities in their own countries.

There are quite a few women in senior management positions at Xerox. Your chairman and CEO, Anne Mulcahy, has said of diversity, "What began as good citizenship has morphed into competitive advantage." How do you get a diverse workforce? Forty percent of the new engineers we hire are women, about twice [the percentage that] graduate from colleges with engineering degrees. More than 10% of our engineers are Hispanic; more than 10% are African-American. You reach a tipping point, and it becomes easier when students come to interview and they see a lot of role models that kind of look and feel like them. They think, "I don't have to be a trailblazer to have a great career at Xerox."

Do you see a decline overall in the number of female students going into technology fields? Not only women, but also men. Women in high school need to know that engineers can help come up with more environmentally friendly technologies, solve medical issues, make sure people have clean water and so on. Many girls just don't see the connection between being an engineer and solving these societal problems.

What advice would you offer a young woman who would like to make a career in technology? I mentor quite a few new hires, and I say No. 1, you have to make sure you quickly gain respect and credibility from your peers and managers. Once you gain that, your project will go much easier. Prove that you are really good. Show results in a timely manner. I call it "punch your ticket and keep it punched throughout your career."

No. 2 is your relationships. You have to really build a strong human fabric, because you get things done through others. It's knowing who you can collaborate with to get your project done and understanding people's potential fears and being able to work with them so they see the value of your project.

The third thing I tell them is what I call "dreaming with the customer" — go out and find customers to dream with, and understand their pain points, and then make sure that the kinds of technology you are working on will really address their pain points.

The fourth thing is, don't be afraid. I have this Chinese proverb hanging in my office that is a two-stroke Chinese symbol or word. It says "danger" or "chaos," but if you cover the left stroke and look at the right stroke, it says "opportunity." Don't be afraid to go after the opportunity.

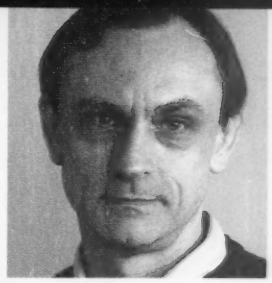
Finally, have fun. You have to have fun and have to be happy in your job.

— *Interview by* **Gary Anthes**

■ OPINION

Michael H. Hugos

Think Screens and Data to Simplify



I KNOW THAT I risk sounding like the Henry David Thoreau of application development, but my mantra cannot be repeated enough: Simplify, simplify, simplify. Complexity derails projects and keeps users from getting what they really want.

Here's an exercise in working with less complexity: The next time you design an application, start by thinking about the sequence of screens that make up the user interface and, at the same time, about the data handled on those screens.

Finding an elegantly simple combination of screens, processing logic and data model is the hardest part of developing most systems, not the programming. When you think of the screens and the data model together, it is much easier to find that simple combination that will make your system easy to build.

Most system screens exist for the entry and editing of data and for the entry of selection and sort criteria to retrieve data. Calculations can usually be described in simple equations, and some additional screens are needed for entering report parameters and displaying the results. There you have it; rarely do business application systems call for much more than that.

While you design the screens for data entry and sort criteria, think about what the data entities will look like in the data model and about the primary and secondary relationships to connect those entities. If you can hold pictures of both the screens and the data model in your mind at the same time, a mental connection takes hold. You can see how your data model changes as you add new screens and what your screens are going to look like as they display and manipulate data in the data model.

Keep adjusting the screens and the data model until you have a good fit between them. Then look for a data model where simple combinations of SQL commands like Sort, Select, Union and Join can deliver most of the logic your system needs.

■ Believe it or not, clever complexity is nothing to brag about.

The better the fit between your screens and the data model, the less code you have to write, and the easier and faster your system is to build. It also helps that business applications mostly just do CRUD (create, read, update, delete), performed on a database of relevant information. The built-in logic of a relational database already gives you most of the logic for those operations.

Next, you want to display some reports so users can see and act on the information the system gives them. Those reports are rarely anything more than some columnar formatted displays, line graphs or pie charts. If you have a good data model, you'll find that simple SQL statements combined with short equations provide the logic for those reports.

Finally, consider any logic you need in order to extract data from other sources to populate your data model. The extraction of that data and loading of your data model on some regular cycle is usually pretty straightforward. Many companies already have data warehouses, but even if you have to tap into a few transaction-processing systems, the required logic and procedures often already exist.

If you don't believe it could be this simple, consider the reasons for your response. Is it because this approach robs you of the opportunity to write lots of clever screens and complex code that you can brag about to your friends? Well, believe it or not, clever complexity is actually nothing to brag about; it's just a sign of an incompletely solved problem. Elegant simplicity indicates a well-solved problem.

Business value is inversely related to system complexity. Learn to see screens and data at the same time, and you will create great value. ■

Michael H. Hugos *is a principal at the Center for Systems Innovation and a speaker. A member of the 2006* Computerworld *Premier 100 IT Leader class, his newest book is* The Greatest Innovation Since the Assembly Line *(Meghan-Kiffer Press, 2007). He can be reached at* www.MichaelHugos.com.

ONLINE REPUTATI

Cleaning up your image is hot,

It's no secret that blogs, forums and other online chatter can make or break a company's reputation. Just ask Ingersoll Rand Security Technologies, which makes high-end locks for bicycles and other sporting equipment. In 2004, its worst nightmare came true when a post on an online cycling forum revealed that its Kryptonite locks could be opened in seconds with a ballpoint pen.

Within days, word had spread to news services and thousands of bicycle enthusiasts around the world. In response, the company created a voluntary lock-exchange program and replaced more than 400,000 locks in 21 countries for free.

For Bob Waxman, on the other hand, the Internet has been a boon. He has taken advantage of online buzz to promote his book, *Kabbalah Simply Stated* (Paragon House Publishers).

In 2004, the Kabbalah instructor secured the services of search engine marketing agency Elixir Systems. In addition to writing and distributing a press release on Waxman's behalf, Elixir combed through his Web site, conducting a metadata analysis of its content and adding keyword tags to his pages to help boost the site's ranking on Web searches for Kabbalah, which is an aspect of Jewish mysticism.

These search engine optimization (SEO) techniques helped increase traffic to his site and boosted its ranking on search engines such as Google, Yahoo and MSN, says Waxman.

Individuals and companies are tapping SEO vendors and a burgeoning portfolio of online reputation management services to pump up their cyberstatus. But not everyone agrees that such practices are fair. What's viewed by some as a Web-savvy move is seen by others as search result manipulation.

Online reputation management "is a space that's hot and is heating up further," says Jeff Zabin, an analyst at Aberdeen Group Inc., who recently cowrote a report on social media monitoring and analysis. Executives are waking up to the use of the Internet as an early-warning system for when their companies' reputations are at risk because of a product defect, a disgruntled customer's blog rant or some other looming crisis, says Zabin.

SEO vendors use sophisticated algorithms and other techniques to enable businesses to suppress unfavorable blog posts about them and learn things about consumer perceptions of their brands as never before. "I think it's going to change how marketing and research is done," says Mike Waite, vice president of panels and communities at market research firm MarketTools Inc.

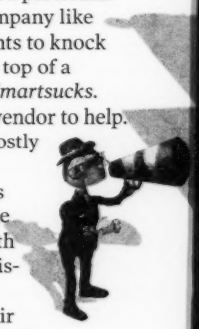
His company has worked with Umbria Inc., a marketing intelligence company that specializes in monitoring social media, to analyze online consumer chatter about MarketTools' clients. "People are just beginning to discover how this kind of data can be applied," Waite says.

Even though online reputation management is catching fire, some would-be corporate customers remain wary. Peter Kim, an analyst at Forrester Research Inc., points to a recent conversation with executives from a 150-year-old company about online reputation management services. "They said their board of directors wouldn't be ready for this," he recalls.

Microsoft Corp., on the other hand, has been piloting social-media monitoring services from multiple vendors, including Visible Technologies LLC. The software giant is mulling the use of these tools to help it better understand what customers are saying in the blogosphere about their experiences with its products, says Sean O'Driscoll, general manager of Microsoft's community support services.

ACCENTUATING THE POSITIVE

Search engines such as Google and Yahoo use complex algorithms to rank the results of searches on a particular keyword or topic. If a company like Wal-Mart Stores Inc. wants to knock negative results from the top of a search list (e.g., *www.walmartsucks.org*), it may hire an SEO vendor to help.



SEO vendors do that mostly by tagging company-sponsored content such as white papers and favorable customer testimonials with key search terms, thus raising the rankings of more positive content, says Elixir Systems CEO Fionn Downhill.

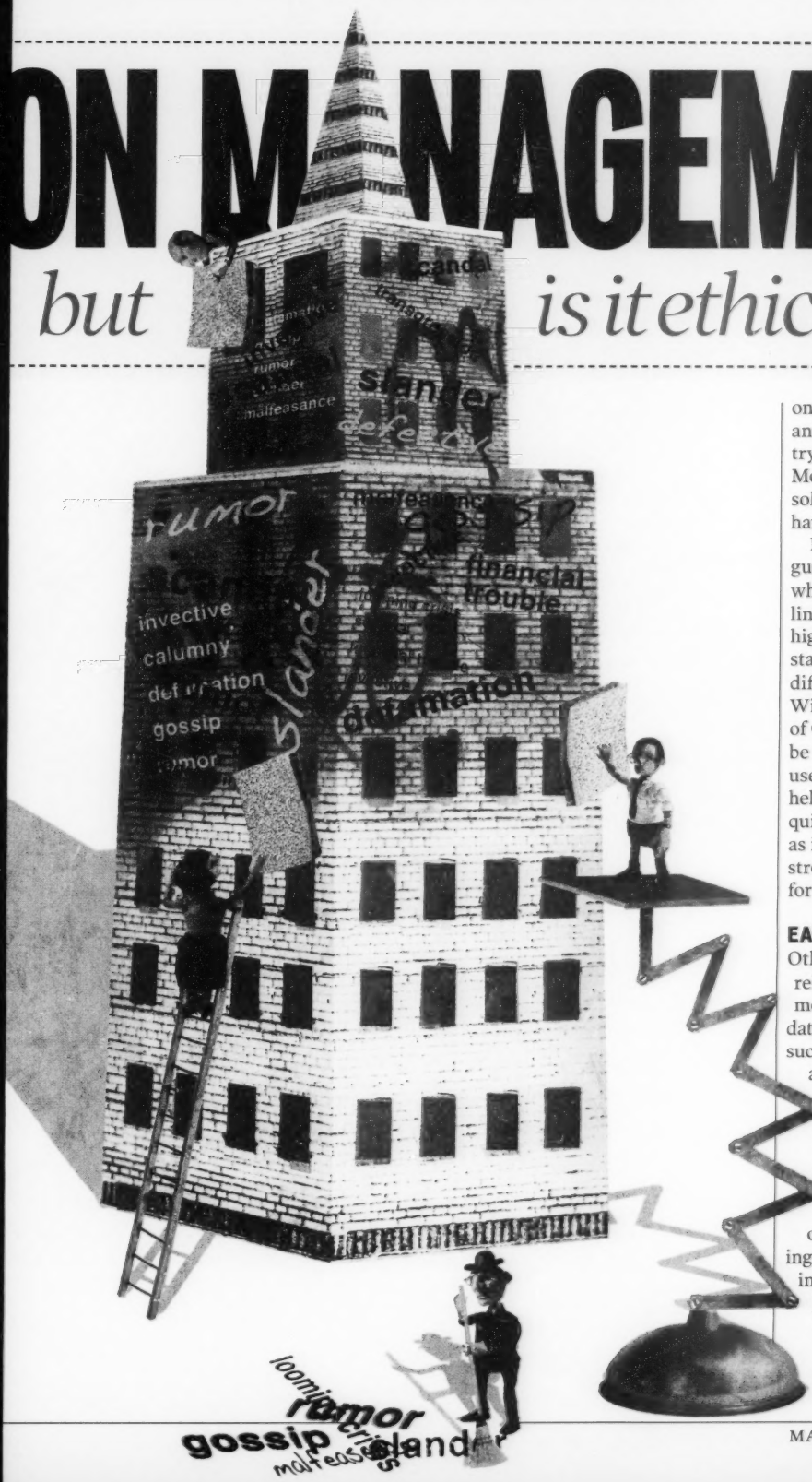
That's pay dirt for the client companies, since 95% of people who use search engines typically view the top 30 listings they find and disregard the rest, according to Chris Martin, owner of online reputation management provider ReputationHawk.com.

But the service isn't cheap. A six-to-12-month campaign by Elixir can cost from $15,000 to $100,000, depending

ON MANAGEMENT

but is it ethical?

By Thomas Hoffman



on the complexity of the assignment and amount of negative content it's trying to suppress, says Downhill. Moreover, she says, customers are "absolutely horrified how much work they have to do to fix the results."

Even so, SEO firms aren't able to guarantee or quantify the extent to which they can bury undesirable online content or place a favorable link high within a search listing. For instance, Martin says that it's extremely difficult to bump a potentially negative Wikipedia entry farther down a page of Google search results. "We might be able to push it down a few slots and use a positive customer testimonial to help," he says. "Google doesn't show quite as much favoritism to Wikipedia as it once had, but it's still really, really strong." (Calls to Google to comment for this story weren't returned.)

EAR TO THE GROUND

Other vendors provide non-SEO-related online reputation management services. Natural-language and data mining experts at companies such as Nielsen BuzzMetrics, Umbria and Cymfony analyze consumer-generated media, such as blogs, forums, podcasts and comments to Web sites, to help clients determine what customers are saying about them.

Cymfony Inc.'s core technology is a natural-language processing application created years ago for intelligence agencies, according to Jim Nail, the vendor's chief strategy and marketing officer.

Umbria CEO Janet Eden-Harris points to work her company con-

Continued on page 26

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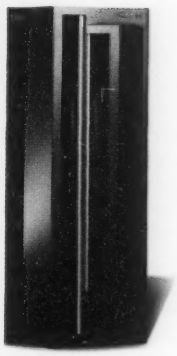
_INFRASTRUCTURE LOG

_DAY 94: We don't have the insights to maintain our IT service-level agreements! We can't deliver against our objectives! How are we supposed to do our jobs in the dark?

_Gil rented a giant searchlight to give us a little "visibility." He's also temporarily blinded all the administrators.

_DAY 96: I found a better way. Hardware, software and services from IBM Service Management give us the integrated visibility, control and automation we need—like dashboards that give us insights to manage against business objectives. We can improve governance and minimize risks. And we can keep tabs on the status and health of our services at each stage of their lifecycle while tracking our SLAs in real time.

_Now if we could just get our vision plan to cover "rampant idiocy."



Tivoli.

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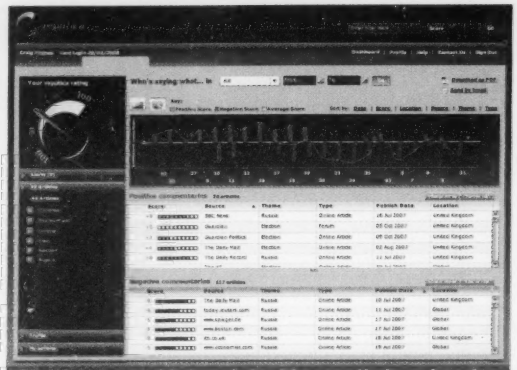


Reputica uses sophisticated algorithms to sift through positive and negative content and rank the results for customers.

Continued from page 23

ducted on behalf of an agency that represented Nike Inc. Around the time that Kobe Bryant was charged with sexual assault in 2003, the shoe manufacturer was trying to decide whether to renew its sponsorship deal with the basketball star.

Although Umbria's research found "tons" of negative commentary about Bryant in the blogosphere during the height of the case, unfavorable content about Bryant among the company's target market — young men — was considerably lower. Nike eventually re-signed Bryant.

Another set of vendors, such as Visible Technologies, Radian6 Technologies and BuzzLogic, provide customers with online dashboards to aggregate and monitor what consumers are saying about them in the blogosphere, says Forrester's Kim.

Some of these companies, such as Reputica Ltd., use sophisticated algorithms to sift through content and rank results for customers. Reputica also scores whatever content it's tracking based on a scale of -10 (most unfavorable) to +10 (most favorable) and allows customers to see how the results are changing over time, says Reputica Chairman Andrew Jordan.

TAKEDOWN SPECIALISTS

Online reputation management companies don't have the wherewithal to remove content that's been posted by other publishers. But they do employ a variety of techniques aimed at achieving that goal.

For instance, if unfavorable information is posted about a client on a Web site or blog, ReputationDefender Inc. will take steps to have it eradicated, says Paul Pennelli, senior director of marketing and partnerships. Typically, the company first explains to the publisher the challenges that the objectionable content is creating for its client. "We'll often find that common decency wins out and the publisher is willing to take the information down," says Pennelli.

If that approach doesn't work, ReputationDefender might explore legal channels for having negative content removed, though Pennelli says that has occurred only rarely.

There are limits to what online reputation management providers can accomplish. "We don't make claims that we can take down every piece of information that customers find objectionable," says Pennelli.

Simple Alternatives

If you want to try to monitor and manage what's said about your company online, you can spend a small fortune doing it. But there are a few simple techniques you can apply that won't break the bank.

1 Regularly Google the name of your company and see what appears.

2 Use free online tools. Experts recommend a variety of tools and information sites such as the Google Webmaster Central Blog, BlogPatrol.com and Technorati. These can help you gauge what people are saying about your company and who is reading your content.

3 Set up a Google Alert so you'll be notified when your organization has been mentioned in a blog, by the media or in an online forum.

4 Tap into social media sites such as YouTube, Facebook and MySpace to create or expand positive online content about your organization.

– THOMAS HOFFMAN

Bottom line: SEO firms and other online reputation management specialists help their customers' online content receive the highest possible ranking in Internet search results while aiming to neutralize negative content that has been posted about them.

Are they "gaming the system," or simply advocating for their clients? Opinions are mixed.

"This is the Internet; there are no rules," says Beau Brendler, director of Consumer Reports WebWatch, the online investigative arm of *Consumer Reports* magazine. However, Brendler acknowledges that he was shocked when his consumer advocacy site appeared on a list of "problem sites" targeted by an SEO agency. "If a newspaper or a consumer rights organization has done an investigation into a company, and an SEO then does something to bury that information, that is harmful," says Brendler.

Others warn that interfering with search results can backfire on companies. "[It] could lead to an erosion of customer loyalty," says Aberdeen Group's Zabin.

Pennelli says it's important to remember that search engines don't deliver perfect results. "If there's information about a person that's 15 years old and it isn't relevant, should that be included?" he asks.

Leslie Gaines-Ross, chief reputation strategist at public relations firm Weber Shandwick Worldwide, draws an analogy between SEO techniques and the Wikipedia model, where companies or individuals can edit what is written about them online. Companies that use SEO services "have to be willing to be totally transparent" about it and shouldn't try to hide their use of such services from their customers or investors, she says.

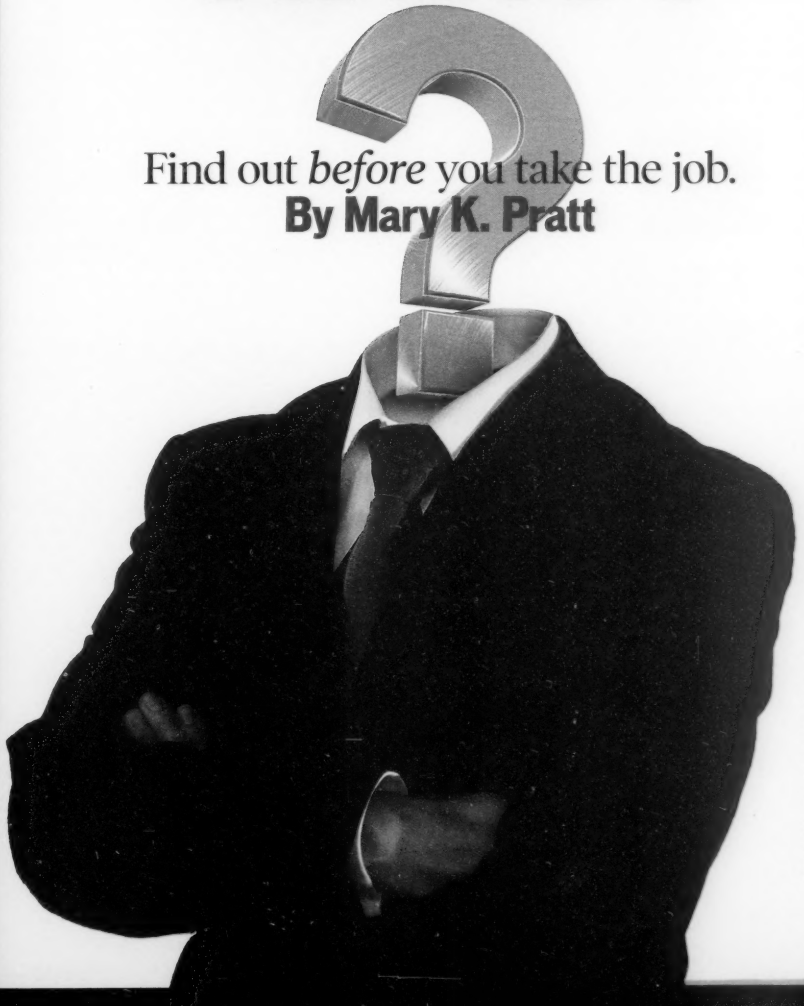
Moreover, says Downhill, Elixir Systems has stepped away from some potentially lucrative customer deals when it determined that the would-be client deserved its soiled reputation.

And so the Internet battle between freedom and responsibility goes on. But one thing is increasingly clear. "There are no secrets anymore," says Gaines-Ross. "Everything about you is practically evergreen and lives forever." ■

WHAT WILL YOUR NEW BOSS REALLY WANT?

Find out *before* you take the job.

By Mary K. Pratt



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HANK LEINGANG was interviewing for the CIO post at a major company when his internal alarm bell went off.

He realized that the other executives were engaged in an ongoing debate over what the CIO role should be.

"They couldn't articulate what they expected from the CIO, and they were also clearly not interested in having an 'impact CIO' in the organization," says Leingang. "I remember leaving the interviews, going back to the airport, calling the headhunter and saying, 'No way.'"

Discerning what your prospective boss wants from you is a survival skill everyone should have, particularly in IT, where duties, responsibilities and expectations are frequently underdefined or unarticulated.

It's not always easy to learn, but you can get the information you need by asking the right questions of the right people, seeking out insiders for unfiltered perspectives and using the whole interview experience to get an accurate view of what the position really entails.

"Based on the information you gather, you'll have to do your own assessment: whether what's needed in the organization is something you can deliver, if it's doable, if you can build the team to do it," says Leingang, now president and CEO of ITM Software Corp.

A LOT TO LOSE

The stakes are high. Jerry Luftman, associate dean at Stevens Institute of Technology's School of Technology Management, recalls a colleague and proven IT leader who took a CIO job without conducting due diligence. He soon found that the company's culture was too formal and that the scope of work was too broad for him to succeed. He quit within a year.

John Chambers, president of JCC Executive Partners, an executive consulting firm, tells of a colleague who was recruited by a friend to join a company as head of engineering. But he quit after six months because he was turned off by the abrasive culture and an impending downsizing.

"Even though you might be recruited by someone you trust, it's still incumbent on you to talk to everybody and understand the vision at that organiza-

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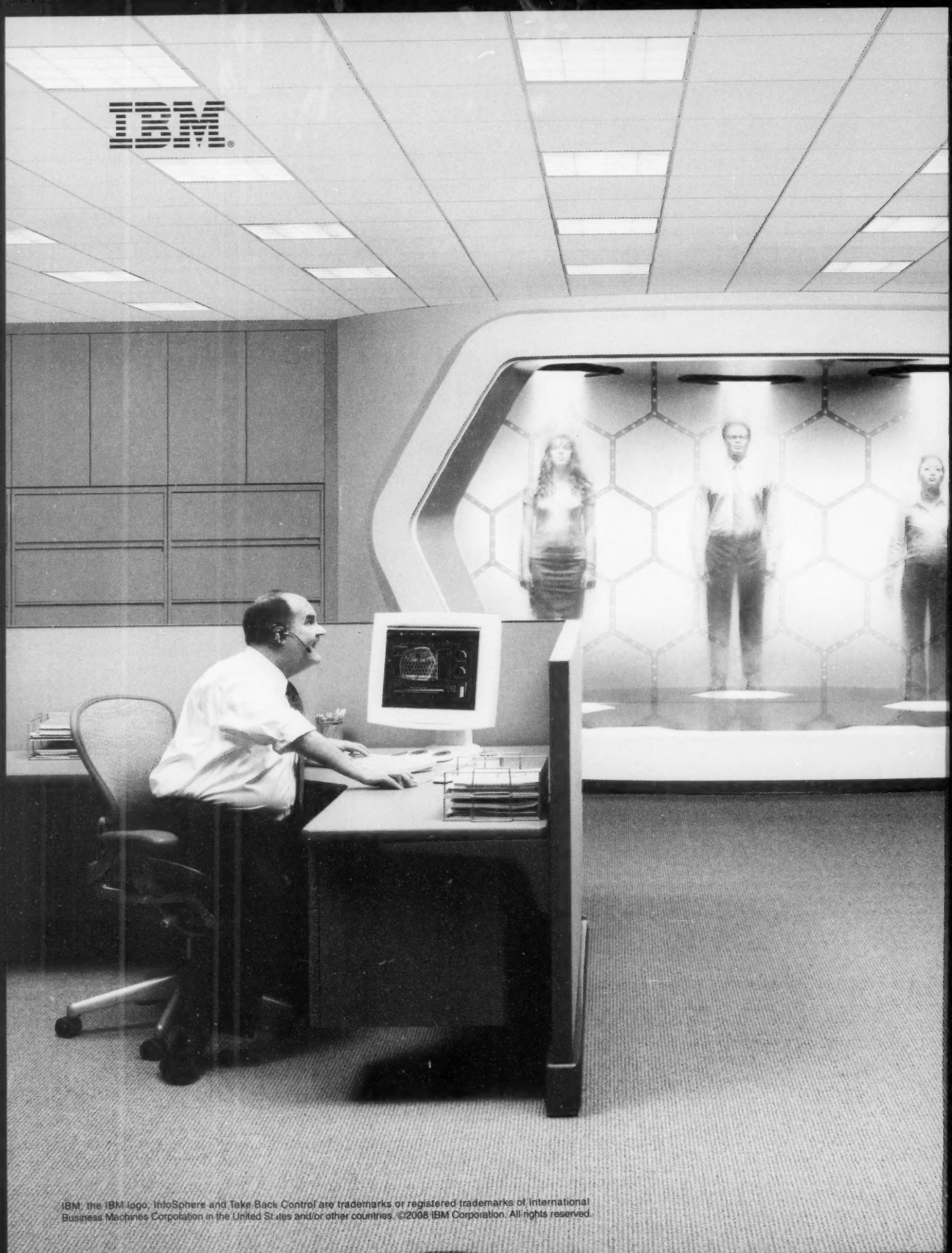

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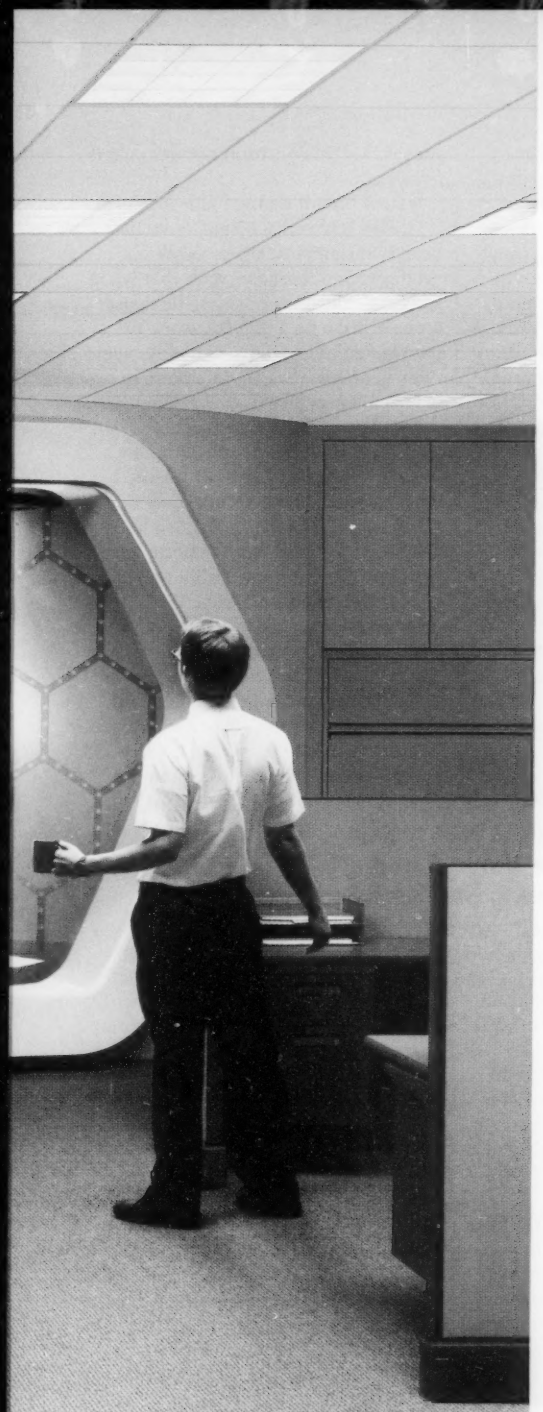

_INFRASTRUCTURE LOG

_DAY 94: Finding critical customer information is impossible. We can't find the data we need, when we need it. How can we put our info to good use if it's not at our fingertips?

_Gil installed a transporter. He says he can instantly beam people to data...He also says marketing is stuck in hyperspace.

_DAY 97: I'm on a new mission using an IBM InfoSphere™ Master Data Management Server and IBM Global Business Services. Now we have real-time access to the customer information we need in a single view. We can deliver trusted info to the people, processes and apps that need it—regardless of location or data type. And we can use it to drive better business results.

_P.S. Marketing is back, but I might have "accidentally" beamed Gil to Mexico City. Lo siento, mi amigo!

Information Management

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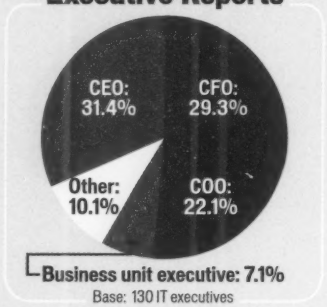
WHO'S THE BOSS?

The responsibilities of IT positions, including the CIO job, aren't clearly articulated at many companies. That makes it more difficult for candidates to understand what companies want, and it makes it challenging for companies to find a candidate who will succeed.

Determining whom the CIO will report to is key to understanding the job. Jerry Luftman, associate dean at Stevens Institute of Technology's School of Technology Management, has done some research and found that "for CIOs who report to CEOs, their business-IT alignment maturity is much higher. Those who report to CFOs are consistently lower, and those CIOs who report to others, such as COOs or VPs, are even lower."

– MARY K. PRATT

Where CIO or Senior IT Executive Reports



Base: 130 IT executives

SOURCE: SOCIETY FOR INFORMATION MANAGEMENT, 2007

Continued from page 27

tion," Chambers says. "It's to ensure that this is the right fit."

Executive search firms often get descriptions of IT jobs that are only three sentences long, so it's essential for candidates to push for more details, says Al Guibord, chairman and founder of The Advisory Council Inc.

For insight into what the company really thinks of a position, find out to whom it reports, he says. For instance, a CIO who reports to facilities is likely not in the same universe as one who reports to the CEO. Then clarify any doubts by asking why the position reports to that particular group.

Also determine the membership of the management team, how long they have held their current positions and what each did previously. Such details can help you understand whether this is a long-standing, cohesive team built internally or a newly formed one brought in from the outside to shake things up.

"It helps you understand the culture of the company, so you know what you're walking into," Guibord says.

Executive coach Suzanne Bates worked with one CIO who had learned his lesson the hard way. He took the job with the understanding that the CEO wanted him to drive change. But he soon learned that in his position, he didn't have the same status as other executives, making change impossible.

"When we ask things like, 'Will I be on the executive team?' we hear just the 'yes.' But you need more," says Bates, author of *Speak Like a CEO* (McGraw-Hill, 2005). "Request a job description to go along with the job offer to spell out the roles and responsibilities, so when you walk in the door there is a common mind-set about why you're there and what your role is going to be."

> **"It's not just about having the right skills [for the job], but having the right interviewing skills.**
>
> **JERRY LUFTMAN,** ASSOCIATE DEAN, STEVENS INSTITUTE OF TECHNOLOGY

Dean Drougas, CIO at Extreme Networks Inc., a provider of Ethernet infrastructure, says that when he considers a new job, he focuses on how the leadership views IT. Is IT considered a differentiator? A strategic asset? Or is it there just to keep the lights on?

He likes to hear answers not just from leadership but from IT staffers, too, so he can see if the views are consistent.

Leingang says it's important to move beyond buzzwords and get into details. For example, executives often say they want IT aligned with the business. You need to get them to spell out what that means. Leingang suggests that questions like these will get the answers you need:

- Does the organization want me to develop strategies, or does it expect me to deliver technology on plans that others have fleshed out?
- How will I be evaluated?
- How does the organization define success for this position two years and five years out?
- How does it define failure?

Harish Ramani, CIO at Constellation Brands Inc., an international alcohol producer and marketer, says that when he is considering a position, he insists on meeting with a diverse group of people, including those from IT, executives in other areas, and workers two or three layers down.

Moreover, Ramani says, it's important to understand the company's business dynamics, the key business drivers, business needs and how IT relates to each of those. He also likes to ask prospective bosses to define business problems — to talk about what's broken and needs to be fixed.

By asking these kinds of questions, you may discover that those interviewing you lack a clear vision of the position. That's often a deal breaker, but not always. Although taking a new job amid vague expectations can create difficulties, you can sometimes turn the situation into an opportunity to carve out a role that suits your own vision. "It's important for you to go in with eyes wide open," Bates says.

And it helps to open them before you go in. That's why it's important to do your homework. "It's not just about having the right skills [for the job], but having the right interviewing skills," says Luftman.

To prepare for the interview, talk to people who previously held the job and personal contacts at the company as well as vendors and consultants to find out what's really going on, says Luftman. He notes that membership in professional organizations, such as the Society for Information Management, where he is an officer, helps in building contacts who can give you the inside scoop.

"It's an interesting dance," says Drougas of the job search experience. "You're interested in being there and they want you there because they have a need to fill. There's this courtship dance, and you don't want to show all your warts — as a candidate and as a company." ■

Pratt *is a* Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

In-house Counsel

When a law firm gets hit with a discovery request for millions of files, its CTO takes the case.

By Mary K. Pratt

THE LAWYERS at Fenwick & West LLP had to sort through more than 100 million files for a client facing litigation. The firm sought outside providers to handle the discovery, but the client was put off by the estimated multimillion-dollar cost.

"They asked us to find another way," says Chief Technology Officer Matt Kesner.

Kesner's team came up with a solution: a proprietary in-house process called FIND, for File Identification Narrowed by Definition, which culls through data to identify pertinent pieces of information that lawyers can then review.

Since that initial innovation about five years ago, Kesner's IT department has refined the process, making the technology-driven service an important part of what it offers to the firm's lawyers as well as their clients.

"It is a great thing for firms to be doing, because it's just not possible to do this kind of work anymore without using software," says Gene Koo, a fellow at Harvard Law School's Berkman Center for Internet & Society.

PREMIER 100 IT LEADERS 2008

BEST IN CLASS

This story is the second in a series showcasing the best projects of this year's Premier 100 IT Leaders.

Fenwick & West LLP

Fenwick & West is a Mountain View, Calif., law firm of 530, the second largest in Silicon Valley.

IT CHAMPION: Matt Kesner, chief technology officer

IT STAFF: 20

PROJECT PAYBACK: The firm spent more than $1 million on its FIND project, which has made file sorting more efficient, thus eliminating the need for outside help.

The computer forensics investigation project at Fenwick & West started with IT workers scrambling to develop the expertise to handle that initial case, according to Kesner.

That meant taking the firm's most talented IT people and letting them loose on the problem. Kesner says he had to learn to harness particular talents at particular times, bringing in the most creative people in the early stages and later rotating in workers more skilled in process and project management.

Kesner suggests that IT workers need to speak "in the same language as the business leaders on risk, both positive and negative, so you and they are on the same footing, so everyone understands the potential upside."

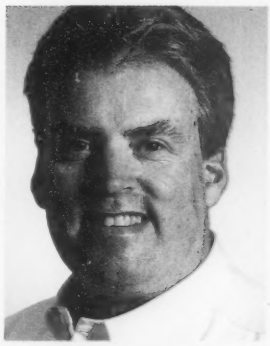
TRIAL AND ERROR

Brad Bonnington, Fenwick & West's practice support and database manager, says the IT team experimented to figure out what off-the-shelf products offered, what they didn't offer and how the IT team would compensate for gaps.

"It was a lot of everything: trial and error, research and development, and knowing what you want out of it," IT Director Kevin Moore says, adding that the IT department learned to consider unsuccessful trials as the cost of doing business.

Fenwick & West's IT department also relied on a traditional test-and-verify approach to build and guarantee the accuracy of FIND.

Today, the process uses more than 75 software tools, most of them off-the-shelf applications without a lot of customization. Kesner says most of them fall into several categories: search-and-retrieval tools, spam filters, search technology, and forensic systems. Kesner's team used a combination of commercial products and open-source software to come up with this tool set.



"[IT workers need to speak] in the same language as the business leaders on risk ... so you and they are on the same footing.

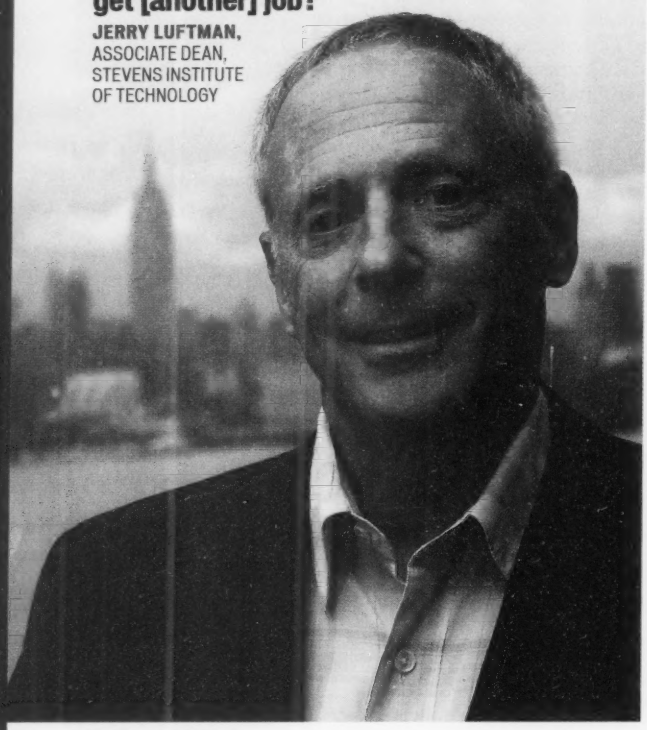
MATT KESNER, CHIEF TECHNOLOGY OFFICER, FENWICK & WEST LLP

To support the process, the IT department built a separate environment for client data, which included 10 new servers, 50 worker machines and backup infrastructure.

The project spurred the creation of the eight-member Practice Support Group to work directly with lawyers and their clients to use FIND to cull data. That group is also part of a major new Fenwick & West practice group called Electronic Information Management, which is expanding the use of FIND beyond litigation to other applications, such as mergers and acquisitions, patent matters and tax issues.

"Some of the ideas that became the FIND process we discovered during that [first] case, but we really refined it in the past couple of years," Kesner says. "It's become a regular process for us in the past two years." ■

Pratt *is a* Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*



"The question was, could I get [another] job?

JERRY LUFTMAN, ASSOCIATE DEAN, STEVENS INSTITUTE OF TECHNOLOGY

■ CAREERS

Blindsided!

IT pros tell about the backstabbers, career dead ends and megatrends they never saw coming. **By Mary K. Pratt**

CAUTION: Watch for backstabbers, career breakers and emerging megatrends.

That warning should come with each IT job, but it doesn't. As a result, most IT professionals have stories about the ones they never saw coming.

A few of them shared their tales in hopes of saving you from experiencing the sudden jolt of your career hitting a wall, the view from behind as a megatrend streaks away or the sickening thud of an unexpected hit from your blind side.

STRAIGHT THROUGH THE HEART

Former CIO John Stevenson remembers grooming a particular employee to someday succeed him. But after two years of working well together, the relationship underwent a radical change. "That person was anxious to take my chair much [sooner] than I realized," Stevenson says.

He learned from a colleague that his protégé had been plotting a career assassination for a few months, spreading rumors and undermining Stevenson's authority. "It was sudden and a surprise," he recalls. "It was affecting my ability to lead the organization.

"And," he added, "it could happen to any manager in any job."

Stevenson struggled with how best to handle the situation and eventually followed some tough advice from a colleague at the Society for Information Management (SIM).

"I was getting to the point of anger and angst, but he said to be calm about how I approached things," explains Stevenson. "He said all I could do was hold my hand out and turn the other cheek and see what happens. And by turning the other cheek and doing what I should be doing — and that's open and frank communication and embracing people at all levels — I outlasted him. Others saw through what he was trying to do. He eventually resigned."

Stevenson is now a SIM Foundation board member and president of consulting firm J.G. Stevenson Associates LLC.

THE ERRANT E-MAIL

As an IT architect at a large vendor, Jeffrey Callan has his own bosses as well as those at client companies. He also has peers at competing firms, although he sometimes collaborates with them while working for client companies.

Callan successfully managed these complex relationships for about 25 years, until a peer used a collaborative situation to land a deal that both vendors had sought. Callan says this peer got an edge by questioning Callan's work at the client company, bringing into doubt his IT competency.

"That person was anxious to take my [CIO] chair much [sooner] than I realized.

JOHN STEVENSON, PRESIDENT, J.G. STEVENSON ASSOCIATES LLC

The move caught Callan by surprise, but the fallout from the situation was even more surprising. Callan's own bosses asked for his assessment, which he provided in a frank e-mail intended only for internal review.

Somehow, though, that e-mail ended up not only at the competitor's company, but also at the client. It put Callan in the awkward situation of having to explain his words to the client.

Callan continued to work for his own company, and he worked with the client company for 10 more months. But he learned to watch what he writes, making sure his e-mails are carefully worded and providing only as much detail as necessary, with no personal notes or emotion.

"If I have something

Preventive Measures

Office politics, bad blood and public accusations can be prevented, says Susan Bethanis, CEO of Mariposa Leadership Inc. and author of *Leadership Chronicles of a Corporate Sage* (Kaplan Publishing, 2004).

To prevent being blindsided, she says, build relationships so that co-workers are more likely to approach you with issues before they become problems. Use formal and informal channels such as meetings, lunches and coffee breaks to ask co-workers for advice and feedback. "They're going to come to you if they're hearing things, and they're going to come to you 'offline,' " Bethanis says.

If something does hit you unexpectedly, first understand the situation: Who are the players? What is your role? Why is this happening?

Then begin damage control. Seek advice from neutral parties, and, depending on the situation, consider approaching the person who blindsided you, Bethanis says. Then chart your path forward and follow it.

– MARY K. PRATT

[sensitive] to tell someone, I make sure it's the old-fashioned way — 'Let's talk' — because e-mails are so easily forwarded," Callan says.

CAREER DEAD END

Jerry Luftman had worked at IBM for 23 years when the company unexpectedly offered him an early retirement package in 1993. Under the offer, he would have to leave that year but wouldn't be eligible for benefits until 2000.

"The question was, could I get [another] job, and how much [salary] could I get?" Luftman says — big questions for someone who had started with IBM right out of college and had stayed.

Luftman, who had been teaching at Columbia University and Stevens Institute of Technology, sought advice from trusted colleagues in business and academia. He decided to pursue an offer from Stevens to build the college's business and management training for technology students.

"I can say without any hesitation that the move I made was one of the better things I have done," says Luftman, who is now the associate dean and distinguished professor of Stevens' School of Technology Management.

THE TECHNOLOGY THAT GOT AWAY

Like most executives, Subbu Murthy receives reams of e-mails, many from unknown sources. So in early 2003, when Murthy opened an e-mail from a small company promoting social networks, he gave the material only a quick glance.

"Social networking was just coming up. We had 14,000 doctors in the network, and I thought, 'Does this apply?' And then I thought, 'Maybe not; it's another hype,' " says Murthy, who was then the CIO at a health care company that managed disability claims.

But in retrospect, Murthy wishes he'd paid more attention. "It turns out that it's a very powerful tool to collaborate. I just missed this trend," he says.

But he learned his lesson. "My advice to my CIO colleagues is to build some intelligence filters around what is really important, so you don't let good ones pass," he says.

Murthy, now president and CEO of USourceIT Pvt., a company that provides IT offshore services, is setting up social networking tools for programmers to interact. He also takes part in several executive roundtables where he can talk and hear about various topics, including which evolving technologies are worth watching.

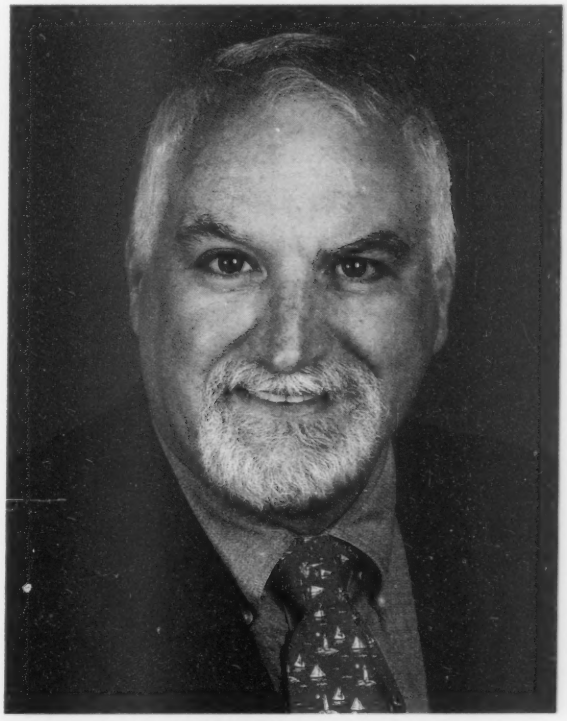
THE REPORT THAT BIT BACK

As a group CIO at Bausch & Lomb Inc. in the 1990s, Dan Gingras helped evaluate the IT department at a company Bausch & Lomb planned to acquire. He reported finding several problems, including a failed ERP implementation. After delivering his report, he assumed his assignment was done.

But Gingras was soon surprised to learn that he'd been assigned to fix the problems he had outlined. "I thought I'd write this report and go back to my old job," he says. "I wasn't thinking beyond what I was doing. I wasn't thinking about the next step. I never thought I'd be asked to fix the situation."

Despite his the lack of foresight, he got the job done. But Gingras, now a partner in the New England practice of consulting firm Tatum LLC, learned from that experience. "Now I know if I'm going to make a recommendation that I'm [likely] going to be asked to implement it," he says. ■

Pratt *is a* Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*



"I thought I'd write this report and go back to my old job. I never thought I'd be asked to fix the situation.

DAN GINGRAS, PARTNER, TATUM LLC

License Renewal Offers Opportunity

Microsoft's family of **security products** gets a **close review.**

EACH YEAR, the IT department reviews and renegotiates its contracts with major vendors. When the Microsoft contract came up for review recently, I was asked whether I wanted to include any security-related products.

I was pleasantly surprised by the invitation, but unfortunately, I haven't spent a lot of time looking at Microsoft security products. So I scheduled a meeting with some Microsoft security product managers to get up to speed.

First up was Forefront, which is a family of products for protecting clients, servers and networks. The client product is appealing because it includes antivirus engines from several leading vendors. I just don't feel that it warrants the logistical nightmare of implementing a new antivirus product to more than 10,000 nodes.

We use Trend Micro OfficeScan, and we've had only two incidents in the past year that it couldn't detect and clean. It's a similar story with our spam filter and VPN client: They aren't broken, so I'm not inclined to fix them.

One feature of Forefront did catch my attention, however: protection for Microsoft SharePoint. We are a huge SharePoint shop and are considering expanding its use. Forefront for SharePoint may be worth adding to our arsenal because, in addition to its ability to scan for malicious code, it would allow us to define what constitutes confidential or inappropriate content and would monitor documents going in and out of SharePoint data repositories.

In addition, we could use it to enforce digital rights management so that documents in particular locations would be automatically wrapped with Windows Rights Management Service.

I'm also interested in enhancing Active Directory by implementing Windows Server 2008. I wasn't around when my company implemented AD, and security and extensibility weren't considerations. Our AD infrastructure is a flat structure, which prevents us from taking advantage of the power of a robust and properly architected AD environment.

■ We may find new ways to limit access and enforce DRM.

Take our VPN as an example. Our AD implementation provides for only a single profile for the VPN. Whether you're an employee, contractor or some other entity who requires remote access to our network, you get the same level of access. That sort of thing is a nightmare for a security manager.

ROLE-PLAYING

I want to restructure AD so that we can limit remote access to the network on the basis of a user's role. Suppliers with VPN access would be allowed access only to the suppliers' portal. I also want to have more than one password policy per domain, so that I can enforce a more robust password policy for administrators while keeping the current, slightly more relaxed policy for the general populous. Upgrading and re-architecting our AD infrastructure definitely won't be a trivial task, and I will surely look to an outside contractor for help when I tackle that project.

Windows Server 2008 is also of interest to me because of BitLocker Drive Encryption and Network Access Protection. While we have already implemented full disk encryption, deployment has been slow, so leveraging another product like BitLocker Drive Encryption to speed things up might make sense.

Finally, I've been evaluating various network access control vendors over the past few months, so I was pleasantly surprised to hear about Microsoft's new Network Access Protection product. I will definitely be taking a hard look at this Microsoft implementation of NAC and comparing it with the others.

I also like the idea that with the Microsoft family of security products, I can use the enhancements in AD to create various groups and security policies, thereby mandating use of these new Microsoft offerings. ■

This week's journal is written by a real security manager, **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

Trouble Ticket

ISSUE: Our manager isn't well-versed on Microsoft's latest offerings.

ACTION PLAN: Meet with the product managers to get up to speed.

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■ OPINION

Robert L. Mitchell

Tech and the Tired Trucker

IN APRIL 2004, an 18-wheel tractor-trailer owned by Swift Transportation ran a stop sign at a highway intersection near Hutchinson, Kan., and slammed into a Chevy Suburban, killing a Wichita businessman. The man's family sued, claiming that the driver had been fatigued. Swift, which relied on its drivers to keep paper logbooks to record their hours, couldn't produce the documentation. It lost the case. In December, the courts imposed a $36.5 million judgment against the company.

Technologies that could have preserved those records and possibly prevented the accident have existed for years. But three of the four largest for-hire trucking firms don't use them, nor do most other large interstate trucking companies — yet.

A fully loaded 18-wheeler can weigh 80,000 pounds, so it's no surprise that accidents often result in fatalities — nearly 5,000 in 2006 alone. "Many of the deaths are related to tired drivers," says Joan Claybrook, president of Public Citizen and a former administrator of the National Highway Traffic Safety Administration.

Drivers are required to keep logs to prove that they are following federal hours-of-service rules that stipulate how many hours they can work per day and the maximum hours of continuous driving allowed. Some drivers break those rules and manipulate paper logbooks to cover their tracks. Claybrook asserts that the practice is widespread.

Electronic driver logs, also known as electronic onboard recorders (EOBR), do away with paper logbooks. The devices typically include a screen and a keyboard where the driver can input activity. That data is matched to a GPS device and vehicle sensors that continuously monitor the vehicle's location and operation and can transmit that data back to the carrier's operations center.

"It's impossible to fudge the numbers. You can't claim you're resting when the truck is moving," says Donald Broughton, a transportation industry analyst at investment banking firm Avondale Partners.

■ Some drivers complain that with the current per-mile compensation levels, they can't make a living without bending the rules.

But carriers make money by delivering the maximum number of loads in the minimum time. Enforcing hours-of-service rules more tightly could reduce per-truck revenues — and profitability — if drivers are breaking the rules. Some drivers complain that with the current per-mile compensation levels, they can't make a living without bending the rules. Adopting EOBRs not only might reduce revenue per truck, but also could require an increase in driver compensation.

But one carrier adopted electronic driver logs and other safety- and performance-related technologies long ago — and now uses those technologies to competitive advantage. Broughton calls Omaha-based Werner Enterprises "best in class" for its use of information and communications technologies to reduce costs and improve profitability. The for-hire operator is able to more efficiently schedule its fleet because it can better track the number of hours its drivers are available. "Only a few companies can run as many miles and generate as much revenue per truck as Werner does," Broughton says.

Requiring EOBRs would force carriers to move forward in lock step, achieving safety goals without putting any carrier at a competitive disadvantage, says Kay Palmer, CIO at carrier J.B. Hunt Transport Services, which is testing EOBRs. That may be the direction the Federal Motor Carrier Safety Administration is heading.

"Electronic recorders have enough political pressure that they will probably be mandated," says Jim Tipka, vice president of engineering at the industry trade group American Trucking Associations.

If EOBRs are required, for-hire carrier fleets may find themselves playing catch-up with Werner. That could give this early mover an edge as its competitors adapt their own business models to a world where drivers can't improve productivity by running illegal hours anymore. ■

Robert L. Mitchell *is a Computerworld national correspondent. Contact him at robert_mitchell@computerworld.com.*

Career Watch

WOMEN'S PAY DISADVANTAGE

The disparity is felt most in retail.

Percentage by which female IT professionals earn less than men, by industry

Retail/mail order/e-commerce	-15.24%
Medical/pharmaceutical	-12.96%
Bank/financial/insurance	-12.25%
Computer software	-11.09%
Computer hardware	-10.91%
Government/defense	-10.14%
Telecommunications	-8.20%
Internet services	-7.83%
Manufacturing	-6.42%

SOURCE: 2007 DICE.COM ONLINE SURVEY, WITH 19,026 PARTICIPANTS

Make Yourself Virtually Squeaky Clean

Services are cropping up that will research the online image you're projecting (perhaps without your awareness) and even clean it up for you if it's creating roadblocks. Reuters reports that for $10 a month, ReputationDefender.com will search for your name across the Web, including password-protected sites, and provide a report of its findings. For about $30 a month, customers can get their online images scrubbed, which means that links that betray, say, irresponsible college behavior or unflattering blog entries from a former partner will not appear during an online search. It could be a good idea. According to a CareerBuilder.com survey, not many hiring managers currently admit to checking social networking sites like Facebook when they're evaluating candidates, but of those who do, 63% decided against hiring applicants because of what they found. They cited evidence of lying about qualifications and criminal behavior as the top reasons for disqualifying someone. – JAMIE ECKLE

26% Number of hiring managers who admit to using search engines when considering job candidates.

12% Number who admit to searching social networking sites.

SOURCE: CAREERBUILDER.COM ONLINE SURVEY OF 1,150 HIRING MANAGERS, 2007

PAGE COMPILED BY JAMIE ECKLE.

FOTOLIA

■ **ASK A PREMIER 100 IT LEADER**

Franz N. Fruehwald

The CIO at **Catholic Human Services** for the Archdiocese of Philadelphia answers questions about making career trade-offs.

Not long ago, I turned down an opportunity for a position with more authority. Why? It was for a nonprofit group, and my salary would have been significantly lower. Since then, I have found myself fixated on the frustrating aspects of my job and wonder whether I'd be happier doing something that paid less but meant something to the wider world. I admit I'm confused about what I should do next. As the CIO of a midsize, highly diversified, faith-based nonprofit, I can relate to your desire to work in an environment that "means something to the wider world." The feeling of satisfaction and fulfillment that comes with working for a nonprofit organization is unquestionable. My experience is that most folks who make a career in the nonprofit sector do so because their personal values meld closely with the mission of the organization, but the personal financial gain of the for-profit sector vs. your perceived job satisfaction at a nonprofit is a trade-off that ultimately only you can decide for yourself.

One cautionary note: The frustrating aspects of your job won't go away simply by virtue of working for a nonprofit organization. The stressors and pressures felt in the for-profit world – whether they be personal, economic or political – are just as present, and in some cases more prevalent, in the nonprofit world.

I've always worked in small companies, enjoying the camaraderie that I might not get in a big corporation and taking advantage of working in several areas so I won't be pigeonholed as the "network guy." I now have four children, and I know I could make more money if I went to a bigger setting. I've been thinking about the trade-offs. Any insights? Bigger is not always better, and a small company does not in my experience necessarily translate into a small paycheck. It strikes me that what you are searching for – camaraderie and a diversified job description – is not exclusive to the size of the company, but a combination of what you make of your situation and the philosophy of the company you are working for.

In terms of comradeship, even in a very large organization, you are part of a smaller division, department or team, which should allow you to make the personal connections that seem important to you.

Additionally, what is your company's advancement philosophy? Does it promote from within? Does it have a career ladder or mentoring program? I would look for this type of a company, where your opportunities for advancement can be maximized.

Finally, don't pigeonhole yourself – wherever you go, don't go in selling yourself as the "network guy," because that's all you'll likely be.

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QUESTION?
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Amazing Feets

Laptop's hard drive fails, but it's still under warranty – just barely. So vendor's tech support guy asks if the laptop needs anything else. "I realized about half of the rubber feet were missing and told the tech," says pilot fish working on the trouble ticket. "He said he would have some of those sent as well." Next morning, two boxes arrive. One contains a hard drive and a note saying the old part doesn't need to be returned. The other contains six little rubber feet – and a shipping label plus instructions on how to send the old parts back. "I contact the tech support guy and ask how I am supposed to return the *missing* rubber feet," fish says. "He assures me that was just a glitch in the system. But about a week later, I start receiving e-mails from the vendor, reminding me to return my parts or we'll be charged for the replacements. After a few of these, I decide to take matters into my own hands. I find an old laptop, pull the three remaining rubber feet off it, and stick them to the original packing slip along with a note that says, 'I'm sorry, but I am unable to return the rest of the missing ones.' "

That Explains It

Support pilot fish gets a call from a user who's trying to work from home but can't manage to get a Wi-Fi connection. Her PC says she has a good signal, user tells fish, but she still can't connect to the Internet. Fish: Do you have any kind of wireless encryption turned on, like WEP? User: "I'm not sure." Fish: OK, we'll need to connect to your router to see if there is a WEP key enabled. User: "Well . . . see . . . this is my neighbor's connection. The router is at his house." Fish: Well, you'll need to ask him for the encryption key. User: "Uh . . . I'm kinda . . . stealing it. But I don't get it – it's always worked before!" Fish: I can't really help you steal Internet. User: "Yeah, I understand. Thanks anyway."

Sir, Please Step Away From the Caffeine

Help desk tech is on the phone with a user, and it's not going well. "You can sense subtle hints when a tech near you is about to lose it," reports a pilot fish on the scene. "He said, very matter-of-factly, 'Miss, if you don't do as I instruct you, I'm going to put you in the penalty box.' Call went on a bit longer. 'Miss, I've warned you about this before. If you don't follow instructions, I'm going to put you in the penalty box.' Apparently, she wasn't a good listener, because shortly after that, the tech threw his headset into a metal desk drawer. He was just going totally insane, kicking his desk and yelling 'You're in the penalty box! You're in the penalty box!' "

■ *For once, Sharky is speechless. So give me something to talk about: Send me your true tale of IT life at sharky@computerworld.com. You'll get a talk-of-the-town Shark shirt if I use it.*

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Periodical postage paid at Framingham, Mass., and other mailing offices. Posted under Canadian International Publication agreement PM40063731. **CANADIAN POSTMASTER:** Please return undeliverable copy to PO Box 1632, Windsor, Ontario N9A 7C9. Computerworld (ISSN 0010-4841) is published weekly; except for a single combined issue the first two weeks of July and the last two weeks of December by Computerworld, Inc., 1 Speen Street, Box 9171, Framingham, Mass. 01701-9171.

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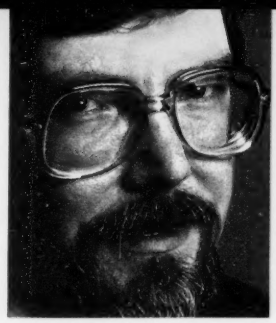
■ FRANKLY SPEAKING

Frank Hayes

The Hard Question



WHAT NOW? That's the hard question. When an IT project is in trouble, it's easy to ask what went wrong and who's to blame. Easy and popular. And fun, if you're not on the hot seat. But what to do to save the project? That's harder — a lot harder. Especially when, as with the U.S. Census Bureau's "paperless census" project, it can't be killed and can't be delayed.

This month, the Government Accountability Office reported that the bureau's plan to use handheld computers for much of the 2010 census is in trouble. The GAO noted cost overruns and project management issues that it has pointed out for years (see story, page 12).

But the big problem is a single device: the custom handheld designed to be used by 525,000 "enumerators" temporarily hired to track down the estimated 100 million Americans who won't return their census forms.

The device, made by HTC Corp., is 6 in. long and weighs most of a pound. It contains a GPS locator, maps, Wi-Fi, a cellular device to transmit encrypted census data, an iPhone-size touch screen, a fingerprint sensor for security and an extra-large battery to run it all.

In short, it's big, heavy and stuffed with gadgetry — not exactly what you'd choose for the retirees who will make up the majority of those half-million enumerators.

And who devised and championed this wrong-headed, user-unfriendly "solution"? A bunch of IT dweebs with no clue about the real world of census-taking, right?

Nope. It was Jay Waite, the career bureaucrat who ran the 2000 census. Waite came up with the idea of using handhelds in 2001, hoping the devices would make the 2010 census faster, less costly, more complete and more accurate.

Then what went wrong? Waite's original idea of using off-the-shelf handhelds from Hewlett-Packard didn't pan out. In early 2006, Harris Corp. won the contract to create the custom device. After that, scope creep, poor communication and iffy project management took their toll.

■ It's big, heavy and stuffed with gadgetry.

So did ordinary bugs. Data uploaded too slowly. Too-big data files wouldn't upload at all. The handheld's security software locked users out for 15 minutes when their fingerprints weren't recognized. Some users quit during the test last year — too complicated, they said. Pretty much all the testers had trouble making the devices work.

But amazingly, as recently as January, there was no contingency plan in case the handhelds just couldn't do the job. Census Director C. Louis Kincannon repeatedly insisted that the handhelds *would* work, and that's all there was to it.

No wonder the GAO described the project as "high risk."

That's what went wrong. Who's to blame? Kincannon. Waite. Harris Corp. The Census Bureau's IT staff. Take your pick — they all contributed.

So much for the easy questions. What now?

In January, Kincannon retired. He was replaced by Steve Murdock, former head of statistics for the state of Texas. One of the first things to land on Murdock's desk was a special team's report on the paperless-census project. Its conclusion: Things were worse than anyone thought. Murdock launched a task force to figure out what to do. Within a month, he had a set of contingency options.

The upshot: The fancy custom handhelds might work. But if they don't, the Census Bureau will use paper instead.

That's an ugly, low-tech kludge. A paperless census is visionary. It's the future. Let's hope those handhelds work.

But if they don't, let's be glad that, when Census Day 2010 arrives, we won't all be asking, "What now?" ■

Frank Hayes *is Computerworld's senior news columnist. Contact him at frank_hayes@computerworld.com.*

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